2021 Annual Groundwater Monitoring and Corrective Action Report

Georgia Power Company – Plant Arkwright

Ash Pond 3 Landfill and Monofill

Macon, Georgia

Project No.: 6122201429

Prepared for:

Georgia Power

Atlanta, Georgia

7/30/2021

CERTIFICATION STATEMENT

This 2021 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company Plant Arkwright – Ash Pond 3 Landfill and Monofill, Macon, Georgia, has been prepared in compliance with Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4-.14 under the supervision of a licensed professional engineer and a licensed professional geologist with Wood Environment & Infrastructure Solutions, Inc.

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SUMMARY

This summary of the 2021 Annual Groundwater Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program from August 2020 through July 2021 at Georgia Power Company's (Georgia Power's) Plant Arkwright Ash Pond 3 (AP-3) Landfill and Monofill. This summary was prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) on behalf of Georgia Power to meet the requirements listed in the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c) and 391-3-4-.14.

Plant Arkwright is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon. The physical address of the plant is 5241 Arkwright Road, Macon, Georgia, 31210. When in operation, Plant Arkwright consisted of four 40-megawatt units. In years before retirement, the plant was used primarily to provide peaking power and operated approximately 40 to 60 days per year. The Plant Arkwright coal-fired power plant was retired in 2002, decommissioned in 2003 and closed in 2010. The 46-acre AP-3 Landfill and Monofill is located between Arkwright Road to the west and Riverside Drive to the east.

Ash Pond 3 Landfill and Monofill at Plant Arkwright

The groundwater monitoring program for AP-3 is managed in accordance with Georgia Solid Waste Management Rules for Groundwater Monitoring and Corrective Action of a municipal solid waste landfill, Rule 391-3-4.14, per GA EPD Permit No. 011-025D(LI). AP-3 is also subject to the GA EPD Rules for Solid Waste Management 391-3-4-.10 for coal combustion residuals (CCR) management. Groundwater at AP-3 Landfill and Monofill is monitored using a compliance well monitoring system comprised of 6 upgradient and 8 downgradient wells installed between December 1992 and November 2020 that meet federal and state monitoring requirements. Routine groundwater sampling and reporting for compliance to meet requirements of rule 391-3-4.10 began after the background groundwater conditions were established between August 2016 and October 2018 for all AP-3 Landfill and Monofill wells with the exception of new background well ARGWA-24, where the first background sample was collected in December 2020. A total of three background samples have been collected from well ARGWA-24 and the next background sampling event for ARGWA-24 is tentatively scheduled for September 2021. Based

on statistical exceedance of Appendix III constituents in groundwater at AP-3 Landfill and Monofill, an assessment monitoring program and assessment of corrective measures were established on November 13, 2019 and July 9, 2020, respectively. During the 2020-2021 reporting period, AP-3 Landfill and Monofill remained in assessment monitoring as corrective measures were evaluated.

During this annual reporting period, Wood conducted three assessment groundwater sampling events in August, September/October 2020, and February 2021. The August 2020 event was an annual assessment constituent screening event and samples were analyzed for the full suite of Appendix IV[1] parameters including radium. The September/October 2020 and February 2021 events were routine semi-annual assessment monitoring events and samples were analyzed for the full suite of Appendix III[2] parameters and those Appendix IV parameters detected in August 2020. Groundwater samples were submitted to TestAmerica Laboratories, Inc., for analysis. Per the CCR rules, groundwater results for the September/October 2020 and February 2021 data were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III[2] and Appendix IV[1] parameters in wells provided in the table below.

Appendix III Parameter	**September/October 2020**
Boron	ARGWC-8, ARGWC-18
pH	ARGWC-15, ARGWC-16
Appendix IV Parameter	**September/October 2020**
Cobalt	ARGWC-17, ARAMW-4
Molybdenum	ARGWC-8

Appendix III Parameter	**February 2021**
Boron	ARGWC-8, ARGWC-18
pH	ARGWC-16, ARGWC-17
Appendix IV Parameter	**February 2021**
Cobalt	ARGWC-17
Lithium	ARAMW-4
Molybdenum	ARGWC-8

[1] Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228
[2] Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from August 2020 through July 2021, the Site will continue in assessment monitoring along with assessment of corrective measures. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be provided to GA EPD semi-annually.

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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) and 391-3-4-.14, this 2021 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power's) former Plant Arkwright Ash Pond 3 Landfill and Monofill (AP-3). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D. For ease of reference, the US EPA CCR rules are cited within this report.

Groundwater monitoring and reporting for Plant Arkwright AP-3 Landfill and Monofill are performed in accordance with the monitoring requirements of 40 CFR § 257.90 through § 257.95. This annual report documents the activities completed between August 2020 and July 2021. Three monitoring events were conducted during this monitoring period: (1) an assessment monitoring constituent screening event was conducted in August 2020, and (2) the subsequent semi-annual assessment monitoring events were conducted in September/October 2020 and February 2021. The installation and sampling of one new background compliance well was conducted in December 2020 and March 2021.

Due to statistically significant levels (SSLs) of cobalt and molybdenum identified in the 2020 Annual Groundwater Monitoring and Corrective Action Report (Wood, 2020a), Georgia Power initiated an Assessment of Corrective Measures (ACM) for AP-3 Landfill and Monofill on July 09, 2020, pursuant to 40 CFR § 257.96(b). In accordance with 40 CFR § 257.96(b), an ACM Report was prepared and submitted to GA EPD in December 2020 (Wood, 2020b). A risk assessment report was also submitted in December 2020 as an Appendix to the ACM report (Wood, 2020c). The risk assessment report concluded that concentrations of cobalt and molybdenum detected in groundwater at AP-3 Landfill and Monofill are not expected to pose a risk to human health or the environment.

Statistical analysis of the September/October 2020 semi-annual groundwater data identified a cobalt SSL in wells ARGWC-17 and ARAMW-4 and a molybdenum SSL in ARGWC-8. SSLs identified in February 2021 included cobalt at well ARGWC-17, lithium at well ARAMW-4, and molybdenum at well ARGWC-8.

1.1 Site Description and Background

The Plant Arkwright site (the Site) is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon (**Figure 1: Site Location Map)**. The physical address of the plant is 5241 Arkwright Road, Macon, Georgia, 31210. The CCR unit area comprises approximately 46

acres. The disposal facility was formally closed in 2010 with the issuance of a closure certificate by GA EPD. Post closure care has been performed in accordance with the GA EPD Permit No. 011-025D(LI) following closure. **Figure 1** depicts the site location relative to the surrounding area.

Plant Arkwright was retired in 2002 and decommissioned in 2003. The AP-3 Landfill and Monofill was initially constructed as a surface impoundment prior to 1958 but did not receive CCR until the 1970s. The CCR unit was closed in 2010 in accordance with the solid waste landfill regulations specified by GA EPD 391-3-4.14, in effect at the time of its closure. Closure construction of AP-3 Landfill and Monofill utilized a geosynthetic clay liner overlain by 18 inches of cover soil. A closure certificate was issued by GA EPD for AP-3 Landfill and Monofill on August 19, 2010. The Closure Certificate initiated the post-closure care period for the CCR unit.

The AP-3 Landfill and Monofill is exempt from the requirements in 40 CFR Part 257 Subpart D – Standard for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments in accordance with §257.50 (d) and (e), which states that the subpart does not apply to CCR landfills that have ceased receiving CCR prior to October 19, 2015. These CCR units are, however, subject to the requirements of relevant portions of GA EPD 391-3-4-.10. The CCR unit referred to as AP-3 Landfill and Monofill is defined as an inactive CCR Landfill per Georgia Solid Waste Management Rule 391-3-4-.10(2)(a)(3).

Semi-annual groundwater monitoring at AP-3 Landfill and Monofill is performed for an approved list of analytes in accordance with the post-closure care period requirements of GA EPD Permit No: 011-025D(LI). The Permit lists Appendix I constituents as arsenic, barium, cadmium, chloride, lead, selenium, silver, and sulfate, and these constituents were analyzed during the September/October 2020 and February 2021 semi-annual events. A minor modification approved by GA EPD on August 9, 2017, added the Appendix III and IV sample parameters to the groundwater monitoring plan. The Appendix I constituents overlap with the Appendix III and IV constituents, with the exception of silver. To meet the requirements of GA EPD rule 391-3-4-.10, a permit application package for the Site was submitted to GA EPD in November 2018 and is currently under review.

Georgia Power has elected to remove CCR material from the AP-3 Landfill and Monofill and will place it in a new, lined landfill that will be constructed at the site. Georgia Power intends to replace the Permit Application currently before GA EPD to reflect this change. The closure of the AP-3 Landfill and Monofill by the removal of CCR provides significant source control that reduces the potential for migration of CCR constituents to groundwater.

1.2 Regional Geology & Hydrogeologic Setting

The geology and hydrogeology of the Plant Arkwright AP-3 Landfill and Monofill are summarized below. The Plant Arkwright site is located along the southern edge of the Washington Slope physiographic district within the Piedmont Physiographic Province (Clark and Zisa, 1976). The Washington Slope is characterized by a gently undulating surface which generally slopes to the south and southeast toward the Coastal Plain Physiographic Province located approximately 3.8 miles to the southeast of the site.

Topography of the Washington Slope ranges from approximately 700 feet above sea level in the areas of southern Atlanta and Athens to approximately 300 feet above sea level at its southern limit along the Georgia Fall Line. Streams follow the structure of underlying crystalline rocks eastward toward the Ocmulgee River. Relief throughout the district is between 50 and 100 feet with the greatest relief being along the Ocmulgee River with steep walled valleys with elevation changes between 150 – 200 feet Clark and Zisa, 1976). Ultimately, all area surface water flow is directed toward the Ocmulgee River.

Bedrock in the region is composed of moderate- to high-grade metamorphic rocks, consisting of biotite-granite gneiss, schist, and amphibolite, and igneous rocks like granite. In the southernmost Piedmont, in the area of the site, bedrock is predominantly composed of biotite gneiss. Major geologic structures in the region include the Ocmulgee fault, located approximately 7 miles to the northwest of the site which strikes mostly northeast – southwest. The top of bedrock surface is highly weathered and where exposed is generally soft and friable (LeGrand, 1962).

1.2.1 Site Geology

The general geology beneath AP-3 Landfill and Monofill consists of clays, silty and sandy clays, silty sands, sandy silts, and minor gravel at depth, underlain by silty sand saprolite and bedrock. Historic borings at the Site indicate bedrock occurs at depths ranging from approximately 14 feet to 63 feet below ground surface, and consists of weathered quartzofeldspathic gneiss, hornblende gneiss, and schist. Boring logs also indicate a relatively thin zone of partially weathered rock (PWR) above bedrock which ranges in thickness from 1 to 4 feet in the southern and eastern portions of the site, and up to 14 feet in the northeastern portion of the site.

1.2.2 Site Hydrogeology

The uppermost aquifer at the Site consists of two hydrostratigraphic units: the water table hydrostratigraphic unit and the underlying shallow fractured bedrock hydrostratigraphic unit. The water table unit is composed of unconsolidated silty sands and sandy silts with clays and variable thicknesses of PWR mantling the bedrock surface. The unconsolidated sands, silts, and PWR are also referred to as overburden. The bedrock unit is the zone of weathered and fractured bedrock.

The water table unit is hydraulically connected to the underlying bedrock through fractures in the partially weathered and fractured bedrock (Southern Company Services, 2005). The monitoring well network for AP-3 Landfill and Monofill (**Figure 2: Monitoring Network Well Location Map**) monitors the water table zone and the shallow weathered and fractured bedrock.

Slug testing data from the site reflect a range of hydraulic conductivities from 10^{-3} to 10^{-4} centimeters per second in the water table hydrostratigraphic unit (Southern Company Services, 2005). Groundwater level monitoring data from the site show stable water level trends and the potentiometric maps reflect groundwater generally flowing to the south and southeast across AP-3 Landfill and Monofill.

1.3 Groundwater Monitoring System

Pursuant to 40 CFR § 257.91, Georgia Power installed a groundwater monitoring system within the uppermost aquifer at AP-3 Landfill and Monofill. The monitoring system is designed to monitor groundwater passing the waste boundary of AP-3 Landfill and Monofill within the uppermost aquifer. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction (**Table 1: Summary of Monitoring Well Network Well and Piezometer Construction**). The monitoring well locations are shown in **Figure 2.** The current monitoring well network at AP-3 Landfill and Monofill consists of 14 monitoring wells: upgradient wells ARGWA-3, ARGWA-5 , ARGWA-12, ARGWA-13, ARGWA-14, and ARGWA-24 and downgradient wells ARGWC-7, ARGWC-8, ARGWC-9, ARGWC-10, ARGWC-15, ARGWC-16, ARGWC-17, and ARGWC-18. The original network included all of these monitoring wells in the 2010 GA EPD-approved Design and Operation Plan, except for ARGWA-24 which was installed in November 2020. Additional details of the installation of ARGWA-24 are located in **Appendix A: Groundwater Well Installation Report**. Three delineation piezometers (ARAMW-3, ARAMW-4, and ARAMW-6) were also installed in November 2019 to delineate the nature and extent of cobalt at well ARGWC-17 and molybdenum at well ARGWC-8 (**Table 1**). A well installation report for these delineation wells were previously submitted to GA EPD in February 2020 as Appendix A of the *2019 Semiannual Groundwater Monitoring and Corrective Action Report* (Atlantic Coast Consulting, 2020).

2.0 GROUNDWATER MONITORING ACTIVITIES

The following describes monitoring-related activities performed between August 2020 and July 2021. The groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each of the 13 groundwater monitoring network wells in August 2020, September/October 2020 and from each of the 14 groundwater monitoring network wells in February 2021 as shown on **Figure 2**. **Table 2: Groundwater Sampling Event Summary**, presents a summary of groundwater sampling events completed at the Site between August 2020 and March 2021.

2.1 Monitoring Well Installation and Maintenance

Monitoring well-related activities conducted during the period included the following:

- Visual inspection of well conditions prior to sampling, recording the Site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.
- Installation of one background compliance well ARGWA-24 for additional characterization of groundwater quality of the water table hydrostratigraphic unit upgradient of AP-3. Other background compliance wells screened directly upgradient of the AP-3 Landfill and Monofill are partially or completely screened in the bedrock hydrostratigraphic unit. The addition of ARGWA-24 to the groundwater monitoring network will provide groundwater quality data specific to the water table hydrostratigraphic unit. The well installation and surveying are documented in **Appendix A.**

2.2 Detection Monitoring Program

In accordance with 40 CFR § 257.94(b), the detection groundwater monitoring program was implemented by collecting eight background groundwater samples. The initial detection monitoring event was performed in March 2019. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents according to 40 CFR § 257.94(a). The background study and the initial detection monitoring event were documented in the *2019 First Semiannual Groundwater Monitoring and Corrective Action Report* (Atlantic Coast Consulting, 2019). Following the installation of groundwater monitoring network well ARGWA-24 in November 2020, background samples were collected in December 2020 and February and March 2021. Data reports for these three background sampling events are included in **Appendix B: Field Sampling Logs and Analytical Data Reports**.

2.3 Assessment Monitoring

Georgia Power implemented assessment monitoring in accordance with 40 CFR § 257.95 in November 2019. An assessment monitoring constituent screening event was conducted August 18 to 21, 2020. The CCR monitoring wells were sampled for the full suite of Appendix IV constituents during the August 2020 assessment monitoring screening event. Following receipt of the Appendix IV screening results, semi-annual assessment monitoring was conducted September 29 to October 1, 2020 and February 9 to 11, 2021. Groundwater samples were collected from the CCR monitoring network wells and analyzed for Appendix III constituents, those Appendix IV constituents detected during the August 2020 assessment monitoring screening event, and Appendix I constituent, silver. The new background monitoring well ARGWA-24 was also sampled for the full suite of Appendix III and Appendix IV constituents on December 1, 2020 and March 29, 2021. Laboratory and Field Data reports for these monitoring events are included in **Appendix B**.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to complete groundwater monitoring at Plant Arkwright AP-3 Landfill and Monofill.

3.1 Groundwater Elevation Measurements and Flow Direction

Prior to each sampling event, groundwater elevations were recorded from each network well and piezometer at AP-3 Landfill and Monofill. Groundwater elevations recorded during the assessment screening and semi-annual monitoring events are summarized in **Table 3: Summary of Groundwater Elevations**. Groundwater elevation data from the monitoring events were used to develop potentiometric surface elevation contour maps (**Figure 3: Potentiometric Surface – August 2020**, **Figure 4: Potentiometric Surface – September 2020**, and **Figure 5: Potentiometric Surface – February 2021)**. Groundwater flow in the uppermost aquifer **(Figures 3, 4, and 5)** is to the south and southeast. The groundwater flow pattern and groundwater elevations observed during the August and September/October 2020 and February 2021 monitoring events are consistent with historical patterns at each of the wells, as can be seen in **Table 3**.

3.2 Groundwater Gradient and Flow Velocity

The groundwater flow velocity at Plant Arkwright AP-3 Landfill and Monofill was calculated using a derivation of Darcy's Law. Specifically,

$$V = \frac{K * i}{n_e}$$

Where:

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

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

$i =$ Horizontal hydraulic gradient $\left(\frac{feet}{feet}\right)$

$n_e =$ Effective porosity

The general groundwater flow velocity was calculated for the site based on hydraulic gradients, average permeability based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). The general groundwater flow velocity calculation is presented in **Table 4: Groundwater Flow Velocity Calculations**. Results for groundwater flow velocities were 0.11 feet/day (41.3 feet/year) in August 2020 and 0.11 feet/day (41.6 feet/year) in September 2020 and 0.11 feet/day (41.3 feet/year) in February 2021.

3.3 Groundwater Sampling

Groundwater samples were collected for the August 2020, September/October 2020, and February 2021 assessment monitoring events and in December 2020 and March 2021 for the newly install background monitoring well (ARGWA-24). All sampling procedures were conducted in accordance with US EPA Region 4 Laboratory Services and Applied Science Division operating procedures. Each of the monitoring wells at the Site is equipped with a dedicated QED bladder pump except for the wells and delineation piezometers installed in November 2019 (ARAMW-3, ARAMW-4, and ARAMW-6) and November 2020 (ARGWA-24), which were pumped with peristaltic pumps. The monitoring wells were purged and sampled using low-flow sampling procedures. Sampling equipment and pump intakes were placed at the midpoint of the well screen. Care was taken to maintain a water level above the top of screen and not draw the water level down below the pump during purging. Water level stabilization was achieved when three consecutive water level measurements vary by 0.3 foot or less at a pumping rate of no less than 100 milliliters per minute. A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, dissolved oxygen [DO], temperature, and oxidation reduction potential [ORP]) and a Hach 2100Q was used to measure turbidity during well purging to verify stabilization prior to sampling. Groundwater samples were collected when the following stabilization criteria were met:

- pH ± 0.1 Standard Units (S.U.);
- Specific conductance ± 5 percent;
- 5 percent for DO > 0.2 milligrams per liter (mg/L). No criterion applies if DO < 0.2 mg/L;
- Turbidity measurements less than 5 nephelometric turbidity units;
- Temperature – Record only, not used for stabilization criteria;
- ORP – Record only, not used for stabilization criteria;

Once stabilization was achieved, samples were collected into appropriately-preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Eurofins TestAmerica Laboratories, Inc. (Eurofins) of Pittsburgh, Pennsylvania, and St. Louis, Missouri following chain-of-custody protocol. Stabilization logs, Groundwater Monitoring Well Integrity Forms, Georgia Power Site Sampling Data forms, and Equipment Calibration forms are included in **Appendix B**.

3.4 Laboratory Analyses

Antimony, cadmium, and mercury were not detected in the groundwater samples collected during the initial assessment monitoring event and were, therefore, not analyzed during the subsequent semi-annual events (September/October 2020 and February 2021) in accordance with 40 CFR § 257.95(d)(1). Cadmium though not detected in the August assessment screening, was analyzed

during the semi-annual events because cadmium is an Appendix I metal required by the solid waste permit. The groundwater samples collected during the February 2021 semi-annual event were also analyzed for major ions to support corrective measures assessment activities. The full Appendix IV constituent suite was analyzed for the sample collected from ARGWA-24 in December 2020 and March 2021. Major ions were also analyzed for the sample collected from ARGWA-24 in December 2020 in support of corrective measures assessment activities. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix B.**

Laboratory analyses were performed by Eurofins TestAmerica. is accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all constituents analyzed for this project. In addition, Eurofins TestAmerica is certified to perform analyses by the State of Georgia.

3.5 Quality Assurance & Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one QA/QC sample per 10 groundwater assessment samples. Equipment blanks (where non-dedicated sampling equipment is used) and duplicated samples were collected during each sampling event. Field blanks were also collected to evaluate ambient conditions at the sampling locations. A data quality evaluation was conducted on the data using laboratory precision and accuracy, and analytical method requirements. The constituent concentrations were generally within the historical range of concentrations. The data quality evaluations are included in **Appendix B**. The data are considered usable for meeting project objectives and the results are considered valid.

The analytical results provided in **Table 5: Analytical Data Summary** provide concentrations from the August and September/October 2020 and February 2021 assessment sampling events and the December 2020 and March 2021 background sampling of the new background compliance well as reported by the laboratory. When values are followed by a "J" flag, this indicates that the value is an estimated analyte concentration detected between the method detection limit and the laboratory reporting limit. The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. Radium values followed by a "U" flag indicate the constituent was not detected above the analytical minimum detectable concentration. The relative percent difference values of concentrations five times the practical quantitation limit (PQL) ranged within the allowable 20%.

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and Appendix IV groundwater monitoring data was performed on samples collected from the groundwater monitoring network pursuant to 40 CFR § 257.93(f) and following the statistical analysis plan. The statistical analysis method used at the site was developed by Groundwater Stats Consulting, LLC using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009, US EPA 530/R-09-007 (US EPA, 2009). To develop the statistical method, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III constituent. Subsequent detection monitoring results were compared to the statistical limits to determine if concentrations were statistically different from background.

Georgia Power established groundwater protection standards (GWPS) for the Appendix IV monitoring constituents for the semi-annual sampling events in this reporting period. The following subsections provide an overview of the statistical methods used to evaluate Appendix III and IV parameters and statistical analyses results.

4.1 Statistical Method

Sanitas groundwater statistical software was used to perform the statistical analyses at the Site. Sanitas is a commercially available decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the Unified Guidance (US EPA, 2009) document. The Interwell method was used for the analysis of the Appendix III constituents. Appendix I constituents were statistically evaluated using the interwell prediction limits. Confidence intervals were also used to evaluate the six permit parameters (arsenic, barium, cadmium, lead, selenium, and silver). Confidence intervals were calculated for silver and each of the detected Appendix IV parameters in each downgradient well. **Table 6: Statistical Method Summary** provides a summary of the statistical methodology used at AP-3 Landfill and Monofill for the monitoring events conducted in September/October 2020 and in February 2021 and will be used for routine monitoring in the future. Specific methodology information is described in **Table 6** and in the following paragraphs.

4.1.1 Appendix III Statistical Method

When using the interwell method, upgradient well data are pooled to establish a background statistical limit for each constituent. The interwell statistical method uses an optional 1-of-2 verification resample plan. When a statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. Interwell prediction limits (PL) were used for the following locations and constituents:

- AP-3 Landfill and Monofill: Boron, calcium, chloride, fluoride, sulfate, Total Dissolved Solids (TDS), and pH.

Data from groundwater samples from downgradient wells collected in the September/October 2020 and February 2021 detection monitoring events were compared to the statistical limits to evaluate whether concentrations exceed background statistical limits.

If data from a sampling event initially exceeds the PL, an optional resampling strategy can be used to verify the result. In 1-of-2 resampling, one independent resample is collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified, and an SSI is identified. When a resample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance. If the initial finding is not verified by a resampling result, the resampled value will replace the initial finding. When the resample confirms the initial finding, the exceedance will be reported.

4.1.2 Appendix IV Statistical Method

The assessment monitoring program statistics for Appendix IV constituents at Plant Arkwright were conducted in two parts. The first part was the calculation of tolerance limits for site-specific background limits for Appendix IV constituents. The second part was the calculation of confidence limits for individual downgradient well/constituent pairs.

Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents. Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for 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 GWPS under 40 CFR § 257.95(h).

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 (0.04 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, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR § 257.95(h)(2). GA EPD has not incorporated the

updated GWPS into the current GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under 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.

Table 7: Summary of Groundwater Protection Standards summarizes the background limits established for each Appendix IV constituent and the GWPS established under GA EPD Rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well. The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS. 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, an SSL is identified.

4.2 Statistical Analyses Results – Appendix I and Appendix III

The statistical analysis and comparison to prediction limits are included in **Appendix C: Statistical Analyses**. A table of identified SSIs for the September/October 2020 and March 2021 Appendix III data can be found in **Appendix C**. Appendix I constituent, silver, was not identified as an SSI during either of these semi-annual sampling events. Based on review of the full Appendix III statistical analysis discussion presented in **Appendix C**, groundwater conditions have not returned to background concentrations and assessment monitoring should continue to be conducted.

4.3 Statistical Analyses - Appendix IV

Appendix C shows the individual well/constituent pairs with their respective confidence intervals in comparison to the respective constituent state derived site GWPS. Based on the statistical results presented in **Appendix C**, SSLs identified in September/October 2020 include:

- Cobalt: ARGWC-17 and ARAMW-4
- Molybdenum: ARGWC-8

SSLs identified in February 2021 include:

- Cobalt: ARGWC-17
- Molybdenum: ARGWC-8
- Lithium: ARAMW-4

The SSL for cobalt identified for delineation piezometer ARAMW-4 in September/October 2020 was not identified in February 2021 due to an increase in the site-specific background for cobalt

from 0.0025 mg/L to 0.0058 mg/L (**Table 7**). The SSL for lithium was identified in February 2021 at delineation piezometer ARAMW-4 (0.014 mg/L) following the fourth sample analyzed for lithium. Confidence intervals are calculated for a well location following the collection of the fourth sample analyzed for an Appendix IV constituent. The lithium concentration observed at ARAMW-4 in February 2021 is similar to concentrations observed during previous sampling events which ranged between 0.012 mg/L and 0.014 mg/L.

5.0 MONITORING PROGRAM STATUS

5.1 Assessment Monitoring Status

Pursuant to 40 CFR § 257.96(b), Plant Arkwright AP-3 Landfill and Monofill will remain in the assessment monitoring program. Georgia Power initiated an ACM on July 9, 2020. On December 4, 2020, the ACM Report (Wood, 2020b) was submitted to GA EPD presenting an evaluation of potential remedies for the cobalt and molybdenum exceedance in wells ARGWC-17 and ARGWC-8, respectively identified in the April 2020 semi-annual groundwater data.

Statistical analysis of the February 2021 semi-annual groundwater data identified lithium as an SSL in well ARAMW-4. The 2021 Semi-Annual Remedy Selection and Design Progress Report that is included in **Appendix D: Semi-Annual Remedy Selection and Design Progress Report** of this report updated the ACM report and included the lithium SSL.

5.2 Assessment of Corrective Measures

The ACM efforts completed during the reporting period covered by this groundwater monitoring and corrective action report are presented in the *Semi-annual Remedy Selection and Design Progress Report* provided in **Appendix D**. The semi-annual progress report summarizes:

(i) the current conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Wood, 2020a);

(ii) the analytical data obtained during the supplemental ACM-specific field investigation;

(iii) the status of evaluating applicable corrective measures; and

(iv) the planned activities and anticipated schedule for the following semi-annual reporting period.

Georgia Power will include future Semi-Annual Remedy Selection and Design Progress Reports with each groundwater monitoring and corrective action report.

6.0 CONCLUSIONS & FUTURE ACTIONS

The 2021 Annual Groundwater Monitoring and Corrective Action Report was prepared to fulfill the requirements of GA EPD Rules for Solid Waste Management 391-3-4-.10. Statistical evaluations of the groundwater monitoring data for AP-3 Landfill and Monofill identified the presence of SSLs of cobalt in ARGWC-17, molybdenum in ARGWC-8, and lithium in ARAMW-4 above the state GWPS.

Georgia Power will continue to monitor AP-3 Landfill and Monofill under the assessment monitoring program pursuant to GA EPD Rule 391-3-4-.10(6) and proceed with the evaluation of potential remedies presented in the ACM Report (Wood, 2020b). During the next semi-annual reporting period, Georgia Power will update the groundwater protection standards for Appendix IV constituents and conduct statistical analysis according to the regulations. The next semi-annual sampling event is tentatively planned for September 2021. The September 2021 semiannual assessment monitoring event will be a combined event to meet the requirements of 40 C.F.R. §257.95(b) and (d)(1) and will include sampling and analysis of all Appendix III and IV constituents.

7.0 REFERENCES

Atlantic Coast Consulting, Inc., 2020, 2019 Semiannual Groundwater Monitoring and Corrective Action Report, February 2020.

Atlantic Coast Consulting, Inc., 2019, 2019 First Semiannual Groundwater Monitoring Report, August 2019.

Clark, W.Z. and Zisa A.C., 1976, Physiographic Map of Georgia, Georgia Department of Natural Resources.

Driscoll, F.G. 1986, Ground Water and Wells, 2nd Edition, Johnson Filtration Systems, Inc., St. Paul. Minnesota, 1089p.

Freeze, R.A. and Cherry, JA. 1979, Groundwater, Prentice-Hall, Englewood Cliffs, New Jersey, 604 pp.

LeGrand, H. E. 1962, Geology and Ground-water Resources of the Macon Area, Georgia. The Geological Survey Bulletin No. 72.

Southern Company Services, Inc., 2005, Plant Arkwright Ash Ponds 2 and 3 and Ash Monofill Site Acceptability Report, Revision 1.

Sanitas: Groundwater Statistical Software, Sanitas Technologies, Shawnee, KS, 2007. www.sanitastech.com

United States Environmental Protection Agency (US EPA), 1989. US EPA 530/SW-89-031 Interim Final RCRA Investigation (RFI) Guidance, Volume I and II.

US EPA, 2000. Guidance for Data Quality Assessment: Practical Methods for data analysis; US EPA QA/G-9, QA00 Update. Environmental Protection Agency report US EPA/600/R-96/084, Office of Environmental Information, Washington, D.C.

US EPA, March 2009. Unified Guidance, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Office of Solid Waste Management Division, U.S. Environmental Protection Agency, Washington, D. C.

US EPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

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

US EPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257and 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. April.

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

Wood Environment & Infrastructure Solutions, Inc., 2020a. 2020 Annual Groundwater Monitoring and Corrective Action Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill and Monofill, July 31, 2020.

Wood Environment & Infrastructure Solutions, Inc., 2020b. Assessment of Corrective Measures – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill and Monofill, December 2020.

Wood Environment & Infrastructure Solutions, Inc., 2020c. Risk Evaluation Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill and Monofill, December 2020.

Wood Environment & Infrastructure Solutions, Inc., 2021. Semi-Annual Remedy Selection and Design Progress Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill and Monofill, July 2021.

TABLES

TABLE 1
SUMMARY OF MONITORING WELL NETWORK WELL AND PIEZOMETER CONSTRUCTION
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, Georgia

Well	Northing [1]	Easting [1]	Top of Casing Elevation (feet above MSL)[2][3]	Ground Surface Elevation (feet above MSL)	Top of Screen Elevation (feet above MSL)	Screen Bottom Elevation (feet above MSL)	Screen Length (feet)	Total Well Depth on Construction Log (ft below land surface)	Total Well Depth Measured February 2021 (feet below TOC) [4]	Water Bearing Zone Screened	Location
ARGWA-3	1066899.39	2437431.05	388.33	386.53	356.2	346.2	10.0	40.5	40.5	Overburden	Upgradient
ARGWA-5	1066885.12	2437209.22	376.15	373.51	353.8	343.8	10.0	30.0	30.0	Overburden	Upgradient
ARGWA-12	1067003.79	2436788.45	372.72	369.27	349.2	339.2	10.0	30.3	35.2	Bedrock	Upgradient
ARGWA-13	1065951.25	2438129.93	371.57	368.10	337.7	327.7	10.0	40.7	43.3	Bedrock	Upgradient
ARGWA-14	1066023.70	2438384.80	388.25	384.94	339.3	329.3	10.0	56.0	58.5	Bedrock	Upgradient
ARGWA-24	1066895.28	2437012.63	373.75	370.85	355.9	345.9	10.0	25.3	28.1	Overburden	Upgradient
ARGWC-7	1064410.59	2438355.19	352.42	348.97	314.2	304.2	10.0	46.5	50.2	Overburden	Downgradient
ARGWC-8	1064521.98	2437572.92	355.53	352.19	322.6	312.6	10.0	40.5	43.2	Overburden	Downgradient
ARGWC-9	1065139.64	2437297.96	367.07	363.44	338.6	328.6	10.0	36.5	38.2	Overburden	Downgradient
ARGWC-10	1065419.44	2437192.51	370.67	367.56	342.6	332.6	10.0	41.5	38.4	Overburden	Downgradient
ARGWC-15	1065475.43	2438360.90	375.64	371.76	342.1	332.1	10.0	40.0	43.0	Bedrock	Downgradient
ARGWC-16	1065263.69	2438174.15	364.90	361.52	340.2	330.2	10.0	31.6	34.5	Bedrock	Downgradient
ARGWC-17	1065458.82	2438009.52	368.24	365.04	344.5	334.5	10.0	30.9	34.5	Overburden	Downgradient
ARGWC-18	1064482.45	2437961.15	355.20	351.92	314.1	304.1	10.0	48.1	50.7	Overburden	Downgradient
ARAMW-3	1064530.73	2437569.81	355.39	352.20	298.2	288.2	10.0	64.0	67.9	Bedrock	Downgradient
ARAMW-4	1065463.83	2438004.43	367.86	364.56	320.6	310.6	10.0	54.0	57.7	Bedrock	Downgradient
ARAMW-6	1064439.35	2437606.99	337.46	334.23	314.2	304.2	10.0	30.0	32.3	Overburden	Downgradient

Notes:
1. Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983 surveyed in June 2020.
2. MSL indicates feet above mean sea level and referenced to North American Vertical Datum of 1988
3. Elevations based on June 2020 survey.
4. TOC indicates top of casing.
5. ARAMW-3, ARAMW-4, and ARAMW-6 were installed in November 2019.

Checked by: J. Quinn 6/2/2021

TABLE 2
GROUNDWATER SAMPLING EVENT SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Well ID	Hydraulic Location	Summary of Sampling Events					Status of Monitoring Well
		August 19 - 21, 2020	September 29 - October 1, 2020	December 1, 2020	February 9 - 11, 2021	March 29, 2021	
ASH POND #3 MONITORING WELL NETWORK							
ARGWA-3	Upgradient	Screening	A03		A04		Assessment Monitoring
ARGWA-5	Upgradient	Screening	A03		A04		Assessment Monitoring
ARGWA-12	Upgradient	Screening	A03		A04		Assessment Monitoring
ARGWA-13	Upgradient	Screening	A03		A04		Assessment Monitoring
ARGWA-14	Upgradient	Screening	A03		A04		Assessment Monitoring
ARGWA-24	Upgradient			BG01	A04/BG02	BG03	Background Monitoring
ARGWC-7	Downgradient	Screening	A03		A04		Assessment Monitoring
ARGWC-8	Downgradient	Screening	A03		A04		Assessment Monitoring
ARGWC-9	Downgradient	Screening	A03		A04		Assessment Monitoring
ARGWC-10	Downgradient	Screening	A03		A04		Assessment Monitoring
ARGWC-15	Downgradient	Screening	A03		A04		Assessment Monitoring
ARGWC-16	Downgradient	Screening	A03		A04		Assessment Monitoring
ARGWC-17	Downgradient	Screening	A03		A04		Assessment Monitoring
ARGWC-18	Downgradient	Screening	A03		A04		Assessment Monitoring
ARAMW-3	Delineation Piezometer	Screening	A03		A04		Assessment Monitoring
ARAMW-4	Delineation Piezometer	Screening	A03		A04		Assessment Monitoring
ARAMW-6	Delineation Piezometer	Screening	A03		A04		Assessment Monitoring

Notes:
BGXX - Background Event and Number
AXX - Assessment Event Number
Screening - Assessment Constituent Screening Event

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Well ID	Top of Casing Elevation (feet NAVD88)[1]	8/17/2020 (Event #13)		9/28/2020 (Event #14)		2/8/2021 (Event #15)	
		Depth to Water (ft BTOC)	Groundwater Elevation (ft)	Depth to Water (ft BTOC)	Groundwater Elevation (ft)	Depth to Water (ft BTOC)	Groundwater Elevation (ft)
ARGWA-3	388.33	34.66	353.67	34.63	353.70	34.66	353.67
ARGWA-5	376.15	23.03	353.12	22.88	353.27	22.83	353.32
ARGWC-7	352.42	22.15	330.27	22.15	330.27	22.73	329.69
ARGWC-8	355.53	26.09	329.44	25.85	329.68	25.12	330.41
ARGWC-9	367.07	20.71	346.36	20.61	346.46	19.83	347.24
ARGWC-10	370.67	21.17	349.50	21.18	349.49	20.51	350.16
ARGWA-12	372.72	15.10	357.62	15.11	357.61	14.78	357.94
ARGWA-13	371.57	23.34	348.23	23.54	348.03	23.73	347.84
ARGWA-14	388.25	41.84	346.41	42.00	346.25	44.74	343.51
ARGWC-15	375.64	28.24	347.40	28.38	347.26	28.92	346.72
ARGWC-16	364.90	20.10	344.80	20.17	344.73	20.13	344.77
ARGWC-17	368.24	21.66	346.58	21.72	346.52	21.66	346.58
ARGWC-18	355.20	28.19	327.01	28.23	326.97	28.02	327.18
ARGWA-24	373.75	Not Installed		Not Installed		20.04	353.71
ARAMW-3	355.39	25.53	329.86	25.29	330.10	24.55	330.84
ARAMW-4	367.86	21.50	346.36	21.39	346.47	21.36	346.50
ARAMW-6	337.46	13.51	323.95	13.36	324.10	12.89	324.57

Notes:
1. Top of casing elevations were resurveyed in June 2020.
2. ARAMW-3 and ARAMW-6 were installed on 11/25/2019; ARAMW-4 was installed on 11/21/2019.
3. ARGWA-24 was installed on 11/12/2020.
4. Groundwater elevations are feet referenced to North American Vertical Datum of 1988 (NAVD88).
5. Groundwater elevations were measured as depth to water from the top of casing (BTOC).

Checked by: J. Quinn 6/2/2021

TABLE 4
GROUNDWATER FLOW VELOCITY CALCULATIONS
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Potentiometric Map Date	Water-Bearing Zone	Location	Groundwater Elevations in Well Pairs (h_1, h_2) (feet)		Change in Elevation (Δh) (feet)	Distance Measured (L) (feet)	Hydraulic Gradient (i) (feet/feet)	Average Hydraulic Conductivity (K) (feet/day)	Estimated Effective Porosity (n_e)	Calculated Groundwater Flow Velocity (V) (feet/day)	Calculated Groundwater Flow Velocity (V) (feet/year)
August 2020	Water Table Aquifer	ARGWA-5 to ARGWC-18	353.12	327.01	26.11	2517	0.010	2.18	0.2	0.11	41.3
September 2020	Water Table Aquifer	ARGWA-5 to ARGWC-18	353.27	326.97	26.30	2517	0.010	2.18	0.2	0.11	41.6
February 2021	Water Table Aquifer	ARGWA-5 to ARGWC-18	353.32	327.18	26.14	2517	0.010	2.18	0.2	0.11	41.3

Notes:
1. In-situ hydraulic conductivity (slug) tests in the overburden at the Site has an average of 2.18 feet/day.
2. Effective porosity of 20% was selected for the silty sands/sandy silts overburden based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979.

TABLE 5
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID											
		ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-13
		8/18/2020	9/29/2020	2/9/2021	8/18/2020	9/29/2020	2/9/2021	8/18/2020	9/29/2020	2/9/2021	8/18/2020	9/29/2020	2/9/2021
APPENDIX III	Boron	NA	<0.039	<0.039	NA	<0.039	<0.039	NA	<0.039	<0.039	NA	0.35	0.38
	Calcium	NA	5.9	5.8	NA	6.6	6.2	NA	14	14	NA	120	110
	Chloride	NA	2.7	3.0	NA	4.6	5.1	NA	12	15	NA	5.7	6.0
	Fluoride	<0.026	0.065 (J)	0.084 (J)	<0.026	0.051 (J)	0.055 (J)	0.041 (J)	0.060 (J)	0.070 (J)	<0.026	0.032 (J)	0.036 (J)
	Sulfate	NA	<0.38	<0.76	NA	<0.38	<0.76	NA	8.3	11	NA	540	520
	TDS	NA	62	62	NA	61	73	NA	130	140	NA	880	890
	pH	6.47	6.02	5.94	6.18	6.00	5.88	6.48	5.88	5.92	6.15	5.75	5.79
APPENDIX IV	Antimony	<0.00038	NA	NA	<0.00038	NA	NA	<0.00038	NA	NA	<0.00038	NA	NA
	Arsenic	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.021	0.019	0.017	0.031	0.030	0.028	0.079	0.079	0.076	0.025	0.024	0.022
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	0.0027	0.0030	0.0028	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.00022 (J)	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	0.00019 (J)	0.00016 (J)	<0.00013	<0.00013	<0.00013	<0.00013
	Lead	0.00019 (J)	<0.00013	<0.00013	0.00013 (J)	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	0.0039 (J)	0.0048 (J)	0.0051	0.0042 (J)	0.0052	0.0054
	Mercury	<0.00013	NA	NA	<0.00013	NA	NA	<0.00013	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061
	Radium	0.132 U	-0.0479 U	-0.187 U	1.12	-0.146 U	-0.312 U	0.587	0.765	1.16	0.380 U	0.403 U	0.394 U
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.019	0.021	0.019
	Thallium	0.00036 (J)	<0.00015	<0.00015	0.00021 (J)	0.00019 (J)	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015
*	Silver	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

TABLE 5
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID											
		ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-24	ARGWA-24	ARGWA-24	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8	ARGWC-8
		8/19/2020	9/29/2020	2/11/2021	12/1/2020	2/9/2021	3/29/2021	8/18/2020	9/29/2020	2/10/2021	8/20/2020	10/1/2020	2/10/2021
APPENDIX III	Boron	NA	0.039 (J)	0.062 (J)	<0.039	<0.039	0.071 (J)	NA	0.078 (J)	0.10	NA	1.2	1.3
	Calcium	NA	29	40	13	9.7	10	NA	11	9.9	NA	52	48
	Chloride	NA	4.1	4.6	12	11	11	NA	4.1	4.5	NA	6.0	6.4
	Fluoride	0.12	0.13	0.25	<0.044	0.057 (J)	0.039 (J)	<0.026	0.027 (J)	0.033 (J)	0.054 (J)	0.14	0.17
	Sulfate	NA	4.1	10	7.5	8.5	7.4	NA	38	43	NA	57	60
	TDS	NA	210	290	120	110	120	NA	140	110	NA	270	270
	pH	6.62	6.80	7.02	5.85	5.69	5.76	6.70	5.92	5.77	6.34	6.44	6.45
APPENDIX IV	Antimony	<0.00038	NA	NA	<0.00038	NA	<0.00038	<0.00038	NA	NA	<0.00038	NA	NA
	Arsenic	<0.00031	0.00038 (J)	<0.00031	<0.00031	<0.00031	0.0014	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.041	0.062	0.066	0.038	0.036	0.035	0.044	0.042	0.041	0.053	0.052	0.049
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	0.00023 (J)	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.0031	0.0031	0.0030	<0.0015	<0.0015	<0.0015
	Cobalt	<0.00013	<0.00013	<0.00013	0.0058	0.00088 (J)	0.00033 (J)	<0.00013	<0.00013	<0.00013	0.00023 (J)	0.00021 (J)	0.00015 (J)
	Lead	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	0.0044 (J)	<0.0034	<0.0034	<0.0034	0.0043 (J)	<0.0034	<0.0034	<0.0034	<0.0034	0.0035 (J)	<0.0034
	Mercury	<0.00013	NA	NA	<0.00013	NA	<0.00013	<0.00013	NA	NA	<0.00013	NA	NA
	Molybdenum	0.00065 (J)	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	0.042	0.043	0.041
	Radium	-0.0549 U	0.134 U	0.413 U	-0.0123 U	0.0311 U	-0.0486 U	0.376 U	0.334 U	0.412	0.140 U	0.512 U	0.384
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Thallium	<0.00015	0.00019 (J)	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015
*	Silver	NA	<0.00018	<0.00018	<0.00018	<0.00018	NA	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

TABLE 5
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID											
		ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-15	ARGWC-16	ARGWC-16	ARGWC-16
		8/19/2020	10/1/2020	2/10/2021	8/19/2020	10/1/2020	2/9/2021	8/19/2020	9/29/2020	2/9/2021	8/19/2020	9/29/2020	2/9/2021
APPENDIX III	Boron	NA	0.041 (J)	0.060 (J)	NA	0.082	<0.039	NA	<0.039	<0.039	NA	0.081	0.076 (J)
	Calcium	NA	5.7	4.8	NA	8.1	7.7	NA	25	23	NA	39	38
	Chloride	NA	5.5	5.9	NA	3.9	4.7	NA	2.5	2.7	NA	5.2	5.7
	Fluoride	<0.026	0.041 (J)	0.051 (J)	<0.026	0.048 (J)	0.051 (J)	0.081 (J)	0.089 (J)	0.094 (J)	<0.026	0.026 (J)	0.056 (J)
	Sulfate	NA	0.82 (J)	1.7	NA	<0.38	1.3	NA	7.7	7.1	NA	200	190
	TDS	NA	55	71	NA	93	81	NA	130	140	NA	340	310
	pH	7.21	5.78	5.91	7.06	5.83	5.94	6.47	7.11	6.43	5.24	5.50	5.24
APPENDIX IV	Antimony	<0.00038	NA	NA	<0.00038	NA	NA	<0.00038	NA	NA	<0.00038	NA	NA
	Arsenic	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.046	0.045	0.038	0.034	0.032	0.031	0.028	0.030	0.029	0.045	0.042	0.044
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	0.0080	0.0075	0.0070	0.0049	0.0047	0.0046	<0.0015	<0.0015	<0.0015	0.0021	0.0020	0.0018 (J)
	Cobalt	0.00013 (J)	<0.00013	<0.00013	0.00015 (J)	<0.00013	<0.00013	0.00040 (J)	0.00030 (J)	<0.00013	<0.00013	<0.00013	<0.00013
	Lead	<0.00013	<0.00013	<0.00013	0.00013 (J)	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
	Mercury	<0.00013	NA	NA	<0.00013	NA	NA	<0.00013	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	0.0016 (J)	0.0019 (J)	0.0012 (J)	<0.00061	<0.00061	<0.00061
	Radium	0.124 U	0.501	0.515	-0.0271 U	0.172 U	0.163 U	0.538	0.394 U	0.669	0.306 U	-0.0246 U	0.460
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.0029 (J)	0.0025 (J)	0.0019 (J)
	Thallium	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	0.00027 (J)	0.00025 (J)	<0.00015
*	Silver	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

TABLE 5
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID										
		ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18 Dissolved	ARGWC-18	ARGWC-18 Dissolved	ARGWC-18	ARAMW-3	ARAMW-3	ARAMW-3
		8/18/2020	9/29/2020	2/9/2021	8/20/2020	8/20/2020	9/30/2020	9/30/2020	2/10/2021	8/20/2020	9/30/2020	2/10/2021
APPENDIX III	Boron	NA	0.045 (J)	0.042 (J)	NA	NA	2.6	2.7	2.4	NA	1.1	0.99
	Calcium	NA	12	12	NA	NA	52	53	52	NA	37	30
	Chloride	NA	3.4	3.1	NA	NA	6.9	NA	7.8	NA	5.5	6.6
	Fluoride	<0.026	0.029 (J)	<0.026	<0.026	NA	0.082 (J)	NA	0.12	<0.026	0.064 (J)	0.099 (J)
	Sulfate	NA	66	73	NA	NA	170	NA	220	NA	49	60
	TDS	NA	140	<200	NA	NA	390	NA	460	NA	240	230
	pH	5.07	5.75	5.17	6.43	6.43	5.98	5.98	5.99	6.24	6.41	6.15
APPENDIX IV	Antimony	<0.00038	NA	NA	<0.00038	<0.00038	NA	NA	NA	<0.00038	NA	NA
	Arsenic	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.062	0.056	0.051	0.041	0.037	0.041	0.037	0.038	0.093	0.094	0.066
	Beryllium	0.00039 (J)	0.00040 (J)	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.030	0.027	0.025	0.0015 (J)	0.0013 (J)	0.0013 (J)	0.0012 (J)	0.0011 (J)	0.00056 (J)	0.0011 (J)	0.00055 (J)
	Lead	<0.00013	<0.00013	<0.00013	0.00028 (J)	<0.00013	0.00020 (J)	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	0.0048 (J)	0.0046 (J)	0.0041 (J)	<0.0034	0.0055	0.0046 (J)
	Mercury	<0.00013	NA	NA	<0.00013	<0.00013	NA	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	0.0029 (J)	0.0061 (J)	0.00065 (J)
	Radium	0.423	0.175 U	0.332 U	0.191 U	NA	0.0811 U	NA	0.568	-0.137 U	0.539 U	0.830
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Thallium	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015	<0.00015
*	Silver	NA	<0.00018	<0.00018	NA	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

TABLE 5
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Substance		Well ID					
		ARAMW-4	ARAMW-4	ARAMW-4	ARAMW-6	ARAMW-6	ARAMW-6
		8/20/2020	9/30/2020	2/10/2021	8/21/2020	10/1/2020	2/9/2021
APPENDIX III	Boron	NA	0.36	0.40	NA	1.1	0.85
	Calcium	NA	210	220	NA	38	33
	Chloride	NA	5.0	5.1	NA	5.0	5.8
	Fluoride	<0.026	0.028 (J)	0.028 (J)	0.051 (J)	0.071 (J)	0.083 (J)
	Sulfate	NA	790	1000	NA	58	59
	TDS	NA	1300	1500	NA	220	220
	pH	5.77	5.94	5.64	6.32	6.37	6.34
APPENDIX IV	Antimony	<0.00038	NA	NA	<0.00038	NA	NA
	Arsenic	0.00034 (J)	0.00039 (J)	<0.00031	<0.00031	<0.00031	<0.00031
	Barium	0.053	0.053	0.042	0.049	0.044	0.041
	Beryllium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Cobalt	0.0050	0.0046	0.0053	0.0018 (J)	0.0018 (J)	0.00047 (J)
	Lead	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lithium	0.012	0.012	0.014	<0.0034	<0.0034	<0.0034
	Mercury	<0.00013	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	0.00073 (J)	<0.00061	<0.00061	<0.00061	<0.00061
	Radium	0.624 U	0.532	0.932	0.285 U	0.0114 U	0.180 U
	Selenium	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
	Thallium	0.00022 (J)	<0.00015	<0.00015	0.00018 (J)	<0.00015	<0.00015
*	Silver	NA	<0.00018	<0.00018	NA	<0.00018	<0.00018

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. J indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * - Georgia Appendix I constituent that is not also included in Appendix IV.

TABLE 6
STATISTICAL METHOD SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

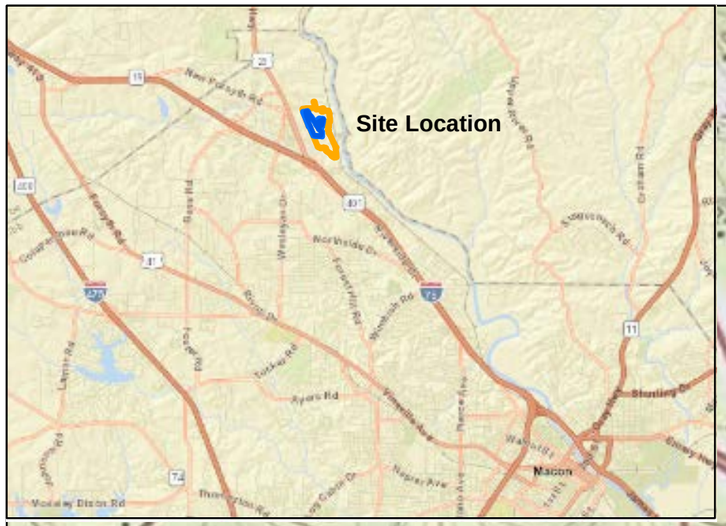
Statistical Methodology	Data Screening on Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available.
	Statistical Limits	Interwell statistical limits.
	Prediction Limits	Parametric when data follow a normal or transformed normal distribution and when less than 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.
	Management of Non-Detects	When data contain less than 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 the Kaplan-Meier non-detect 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.
	Confidence Intervals	Used in Assessment and Corrective Action monitoring.
	No Statistical Testing	Statistical testing is not required for parameters containing 100% non-detects (US EPA Unified Guidance, 2009, Chapter 6).
	Verification Resample Plan	Optional 1-of-2 with minimum of 8 samples per well for interwell testing.
	Optional	▪ Initial statistical exceedance warrants optional independent resampling within 90 days. ▪ If resample passes, well/parameter is not a confirmed statistically significant increase (SSI). ▪ If resample exceeds, well/parameter has a confirmed SSI. If no resample is collected, the original result is deemed verified.

TABLE 7
SUMMARY OF GROUNDWATER PROTECTION STANDARDS
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Constituent	Units	MCL	Federal CCR Rules Specified Limit	Site-Specific Background October 2020	State Derived Site GWPS (2) October 2020	Site-Specific Background February 2021	State Derived Site GWPS (2) February 2021
Antimony	mg/L	0.006		0.002	0.006	0.002	0.006
Arsenic	mg/L	0.01		0.005	0.01	0.005	0.01
Barium	mg/L	2.0		0.24	2.0	0.24	2.0
Beryllium	mg/L	0.004		0.0025	0.004	0.0025	0.004
Cadmium	mg/L	0.005		0.0043	0.005	0.0043	0.005
Chromium	mg/L	0.1		0.01	0.1	0.01	0.1
Cobalt (1)	mg/L		0.006	0.0025	0.0025	0.0058	0.0058
Fluoride	mg/L	4.0		0.53	4.0	0.53	4.0
Lead (1)	mg/L		0.015	0.013	0.013	0.013	0.013
Lithium (1)	mg/L		0.04	0.0099	0.0099	0.0099	0.0099
Mercury	mg/L	0.002		0.0002	0.002	0.0002	0.002
Molybdenum (1)	mg/L		0.1	0.015	0.015	0.015	0.015
Combined Radium	piC/L	5.0		1.066	5.0	1.08	5.0
Selenium	mg/L	0.05		0.034	0.05	0.034	0.05
Silver	mg/L			0.0051	0.0051	0.0051	0.0051
Thallium	mg/L	0.002		0.001	0.002	0.001	0.002

Notes:
mg/L - milligrams per liter
piC/L - picoCuries per liter
MCL - Maximum Contaminant Level: The MCL is the GWPS under the Federal CCR Rule unless background is greater.
Federal CCR Rules Specified Limit - Groundwater protection standard specified in the Federal CCR Rule 40 CFR § 257.95 (h) Amendment July 30, 2018
GWPS - Groundwater Protection Standard
(1) Constituent without an established MCL. The background limits were 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 the existing Georgia EPD Rules, the GWPS is: (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background concentrations for constituents where the background level is higher than the MCL.

FIGURES



N

Pumping Sta
WT
Arkwright
Power Plant
INTERCHANGE 56
INTERCHANGE 55
BR 369
Substa
Sewage Disposal Pond
SHERATON
BM 338
BM 321
0 750 1,500 3,000 Feet

Legend

- Ash Pond 3 Landfill and Monofill
- Ash Pond 2 Dry Ash Stockpile
- Approximate Property Boundary

Plant Arkwright Ash Pond 3 Landfill and Monfill
Macon, Georgia

2021 Annual Groundwater Monitoring and Corrective Action Report

Site Location Map

Prepared By-Date: NJM - 6/29/2021	wood.	Figure: 1
Checked By-Date: RQ - 6/29/2021		
Project Number: 6122201429		

N

ARGWA-12

ARGWA-24

ARGWA-5

ARGWA-3

ARGWA-14

ARGWA-13

Ash Pond 3

Ash Monofill

ARAMW-4

ARGWC-15

ARGWC-10

ARGWC-17

ARGWC-16

ARGWC-9

ARAMW-3

ARGWC-18

ARGWC-8

ARGWC-7

ARAMW-6

Legend

- Groundwater Monitoring Network Well
- Delineation Piezometer
- Approximate Limits of Waste
- Approximate Property Boundary

0 125 250 500 Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

2021 Annual Groundwater Monitoring and Corrective Action Report

Monitoring Network Well Location Map

Prepared By-Date: NJM - 7/19/2021	
Checked By-Date: RQ - 7/19/2021	wood.
Project Number: 6122201429	**Figure: 2**

N

ARGWA-12
357.62

ARGWA-5
353.12

ARGWA-3
353.67

355

355

350

Ash Pond 3

ARGWA-14
346.41

ARGWA-13
348.23

Ash Monofill

ARAMW-4
346.36*

ARGWC-15
347.40

ARGWC-17
346.58

350

ARGWC-10
349.50

345

ARGWC-16
344.80

ARGWC-9
346.36

345

340

340

335

335

330

ARGWC-8
329.44

ARAMW-3
329.86*

ARGWC-18
327.01

ARGWC-7
330.27

325

ARAMW-6
323.95

325

330

Notes:
* - Groundwater elevation was not used in contouring.
- Groundwater elevations calculated using top of casing measurements collected during the June 2020 site survey.

Legend

330.78 Groundwater Elevation (ft NAVD88)

Groundwater Elevation Contour (ft NAVD88)

Groundwater Elevation Location

Interpreted Groundwater Flow Direction

Approximate Limits of Waste

Approximate Property Boundary

0 125 250 500 Feet

NICHOLAS JARRAD MCMINN
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 2308

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

2021 Annual Groundwater Monitoring and Corrective Action Report

Potentiometric Surface - August 2020

Prepared By-Date: NJM - 6/29/2021
Checked By-Date: RQ - 6/29/2021
Project Number: 6122201429

wood.

Figure: 3

N

ARGWA-12
357.61

ARGWA-5
353.27

ARGWA-3
353.70

355

355

350

350

ARGWA-13
348.03

ARGWA-14
346.25

Ash Monofill

ARAMW-4
346.47*

ARGWC-15
347.26

ARGWC-17
346.52

ARGWC-10
349.49

345

ARGWC-16
344.73

ARGWC-9
346.46

345

340

340

335

335

ARAMW-3
330.10*

ARGWC-8
329.68

ARGWC-18
326.97

ARGWC-7
330.27

330

330

325

ARAMW-6
324.10

Notes:
* - Groundwater elevation was not used in contouring.
- Groundwater elevations calculated using top of casing measurements collected during the June 2020 site survey.

Legend

330.78 Groundwater Elevation (ft NAVD88)

Groundwater Elevation Location

Groundwater Elevation Contour (ft NAVD88)

Interpreted Groundwater Flow Direction

Approximate Limits of Waste

Approximate Property Boundary

0 125 250 500 Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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No. 2308

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

2021 Annual Groundwater Monitoring and Corrective Action Report

Potentiometric Surface - September 2020

Prepared By-Date: NJM - 6/29/2021	
Checked By-Date: RQ - 6/29/2021	
Project Number: 6122201429	wood.

Figure: 4

N

ARGWA-12
357.94

ARGWA-5
353.32

ARGWA-3
353.67

ARGWA-24
353.71

ARGWA-13
347.84

ARGWA-14
343.51

ARAMW-4
346.50*

ARGWC-17
346.58

ARGWC-15
346.72

ARGWC-16
344.77

ARGWC-10
350.16

ARGWC-9
347.24

ARAMW-3
330.84*

ARGWC-8
330.41

ARGWC-18
327.18

ARGWC-7
329.69

ARAMW-6
324.57

355
350
345
340
335
330
325

Ash Pond 3

Ash Monofill

Notes:
* - Groundwater elevation was not used in contouring.
- Groundwater elevations calculated using top of casing measurements collected during the June 2020 site survey.

Legend

- 324.57 Groundwater Elevation (ft NAVD88)
- Groundwater Elevation Contour (ft NAVD88)
- Interpreted Groundwater Flow Direction
- Groundwater Elevation Location
- Approximate Limits of Waste
- Approximate Property Boundary

0 125 250 500 Feet

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GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 2308

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

2021 Annual Groundwater Monitoring and Corrective Action Report

Potentiometric Surface - February 2021

Prepared By-Date: NJM - 6/29/2021
Checked By-Date: RQ - 6/29/2021
Project Number: 6122201429

wood.

Figure: 5

APPENDIX A

GROUNDWATER WELL INSTALLATION REPORT

Groundwater Monitoring Well Installation Report

Georgia Power Company – Plant Arkwright

Ash Pond 3 Landfill and Monofill

Project No.: 6122201429

Prepared for:

Georgia Power

Atlanta, Georgia

2/15/2021

Professional Groundwater Scientist Certification

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction. We certify that the information included is to the best of our knowledge and belief, true, accurate and complete. In preparing this report, we have relied on information provided by Southern Company Services and Georgia Power.

Gregory J. Wrenn, P.E.
Registered Professional Engineer
Professional Engineer No. 025565

Date: Feb. 15 2021

GEORGIA REGISTERED No. 025565 PROFESSIONAL ENGINEER GREGORY J. WRENN

Nicholas J. McMillan, P.G.
Registered Professional Geologist
Georgia Registration No. 2308

Date: Feb. 15, 2021

NICHOLAS JARRAD MCMILLAN GEORGIA REGISTERED PROFESSIONAL GEOLOGIST No. 2308

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List of Appendices

1.0 INTRODUCTION

The Georgia Power Company (GPC) former Plant Arkwright is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon. The former coal-fired power plant was retired in 2002 and decommissioned in 2003. The CCR unit area comprises approximately 46 acres.

The Ash Pond 3 (AP-3) Landfill was initially constructed as a surface impoundment prior to 1958 but did not receive CCR until the 1970s. The CCR unit was closed in 2010 in accordance with the solid waste landfill regulations with the issuance of a closure certificate by Georgia Environmental Protection Division (GA EPD). Post-closure groundwater monitoring is performed on a semi-annual basis in accordance with the GA EPD monitoring requirements.

Pursuant to regulations, GPC implemented a groundwater monitoring system within the uppermost aquifer at AP-3 Landfill and Monofill. The monitoring system is designed to monitor groundwater passing the waste boundary of AP-3 Landfill and Monofill within the uppermost aquifer. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction.

In order to supplement the groundwater monitoring system, one background compliance monitoring well (ARGWA-24) was recently installed for additional characterization of groundwater quality upgradient of AP-3. The current monitoring well network at AP-3 Landfill and Monofill now consists of six upgradient monitoring wells (ARGWA-3, ARGWA-5 , ARGWA-12, ARGWA-13, ARGWA-14, and ARGWA-24) and eight downgradient monitoring wells (ARGWC-7, ARGWC-8, ARGWC-9, ARGWC-10, ARGWC-15, ARGWC-16, ARGWC-17, and ARGWC-18). Additionally, three delineation piezometers (ARAMW-3, ARAMW-4, and ARAMW-6) have been installed at the downgradient edge of AP-3 Landfill and Monofill.

This report provides details for the drilling and installation of background (upgradient) monitoring well ARGWA-24 installed November 12, 2020. The monitoring well details are included in **Table 1: Summary of Well Construction** and the location of ARGWA-24 is shown in **Figure 1: Monitoring Network Well Location Map**.

2.0 DRILLING AND WELL INSTALLATION

The following sections provide details and description of drilling methodology, materials, and installation procedures used in constructing the background compliance monitoring well ARGWA-24. Monitoring well installation details are summarized in **Table 1**.

2.1 Drilling Method

Wood provided oversight and documented drilling and installation of the background monitoring well by Cascade Drilling, under contract with Southern Company, on November 12, 2020. The drilling was performed using sonic technology with a Terra Sonic, compact, track-mounted drill rig. To provide clearance of any potential underground utilities, the first 10 feet of ARGWA-24 was completed by air knife.

Following subsurface clearance, a 4-inch diameter sampling core barrel and tooling, followed by a 6-inch override (outer) casing, was advanced via sonic methodology to a depth of approximately 25 feet for the purpose of collecting soil for characterization and subsequent well installation. Soil was collected continuously, in core runs up to 10 feet, from the ground surface to the boring termination depth. Upon completion of a core run, prior to retracting the core barrel, 6-inch override (outer) casing was advanced over the 4-inch core barrel and tooling to maintain borehole integrity. Once the override casing was in place, the core barrel was retracted from the borehole and the soil sample was extruded into a plastic sleeve and provided to the Wood field geologist for characterization and documentation. After sample retrieval, the core barrel was advanced and another core run was completed. This process was continued until the target depth was reached.

Upon reaching the target depth, the 6-inch override casing was used to flush/clean-out the borehole and left in place for well construction. The monitoring well was installed directly through the override casing. The screen and casing (riser) were placed in the override casing and the annular space was filled (i.e., emplacement of the filter pack, bentonite, and grout) as the override casing was retracted.

2.2 Screened Interval

The background monitoring well is screened in the overburden and is constructed with 10 feet of slotted screen as shown in the boring log provided in **Appendix A: Well Construction and Boring Logs**. The soil boring was advanced to the top of bedrock, and the well was set at this depth, such that the screened interval is positioned in the overburden directly above bedrock.

2.3 Well Casing and Screens

The well is constructed of 2-inch inside diameter Schedule 40 polyvinyl chloride (PVC) casing (riser) and pre-packed Number 10 slot (0.010 inch aperture) screen. The pre-pack screens are comprised of a 5-foot section of slotted PVC screen covered with a stainless steel mesh (outer screen) to contain filter pack material situated between the outer stainless steel mesh and the slotted PVC. Two pre-packed screens were used in the construction of the monitoring well. Well construction materials are designed to be sufficiently durable to resist chemical and physical degradation and not interfere with the quality of groundwater samples. The casing and screen sections were flush-threaded and did not require the use of solvent or adhesive to construct the well. The pre-packed well screens generally combine a centralized inner well screen (slotted PVC), a void filled with filter pack (sand) appropriately sized for the screen aperture, and an outer conductor screen (stainless steel mesh) in one integrated unit.

The monitoring well was designed and constructed to:

1) allow sufficient groundwater flow to the well for sampling;
2) minimize the passage of formation materials (turbidity) into the well; and,
3) ensure sufficient structural integrity to prevent collapse of the well.

2.4 Filter Pack

The filter pack material is designed to be chemically inert, clean, well-graded, well-rounded, dimensionally stable, silica (quartz) sand of which the 80 to 90 percent retained size is 0.010-inch diameter (the screen aperture). The filter pack sand used for the construction of the monitoring was the #1 well gravel from Southern Products & Silica Co. The filter pack material was emplaced in the annular space between the outside of the pre-pack screen and borehole wall to ensure an adequate thickness of filter pack material between the well and the formation. The filter pack was extended approximately two and a half feet above the top of the screen. Potable water was mixed with the filter pack material to generate a slurry in order to prevent bridging from occurring during filter pack emplacement. After installing the filter pack, the well was pumped to ensure settlement of the filter pack material, prior to installing the annular seal. The filter pack depth/interval is documented in well construction log provided in **Appendix A**.

2.5 Annular Seal

After installing the filter pack, approximately three feet of bentonite pellets were emplaced in the annular space directly above the filter pack to seal the annulus and prevent vertical flow of water along the well casing. The bentonite used for the construction of the well was 3/8-inch, non-coated pellets (PDS Pel-Plug). The bentonite pellets were allowed to hydrate and settle in accordance with the manufacturer's recommendations prior to grouting the well.

After the bentonite was adequately hydrated, the remaining annular space was sealed using AQUAGUARD by Baroid Industrial Drilling Products, a sodium bentonite blended grout. The grout was prepared in accordance with manufacturer's instructions and emplaced from the bentonite seal to the near ground surface via tremie method. The grout was injected at a low velocity as to not displace the bentonite seal and the tremie pipe was raised as grout filled the annular space. A concrete seal extends from approximately two feet below ground surface to grade and was formed into a slightly mounded cement apron extending outward to help direct rainwater run-off away from the piezometer.

2.6 Cap and Protective Casing

The monitoring well was fitted with a sealable cap and a lockable, 4-inch square, steel, above-grade (stick-up) protective casing was installed over the well to protect the PVC riser from damage and secure the well from unauthorized access. The annular space between the well riser and protective casing was filled with pea-size gravel and a small weep-hole was drilled near the base to allow for drainage from inside the protective casing. Additionally, bollards were installed at the corners of the concrete pad to protect the well. Prior to leaving the site, the well was secured with a padlock, keyed specific to the site (Master, 2246 key). Monitoring well construction details are documented in Well Construction Log provided in **Appendix A**.

3.0 WELL DEVELOPMENT

The well was developed using an electric submersible pump to restore the natural hydraulic conductivity of the formation and to remove fine-grained sediment to help ensure low-turbidity groundwater samples. The well was alternately surged and purged until visually clear of particulates. Groundwater quality parameters, including turbidity, pH, and specific conductivity were monitored for stabilization during development to verify that the well was adequately developed.

Development of the well continued until criteria indicating adequate development was achieved. Development is generally recognized as being complete when the well yields water with a turbidity less than 10 Nephelometric Turbidity Units (NTU) and the pH and specific conductivity have stabilized (i.e., pH within 0.1 standard unit and specific conductivity within 5% over three consecutive measurements). The development forms are included in **Appendix B: Well Development Form**.

Prior to deploying the development pump in the monitoring well, the pump was decontaminated and fitted with new disposable tubing. New, disposable, nitrile gloves were worn throughout the development process, including when initially deploying the pump, handling the pump and tubing while surging, and during decontamination activities.

4.0 SURVEY

The monitoring well location, top of casing (TOC) elevation, and ground surface elevation were surveyed by Donaldson Garrett & Associates, Inc. Northings and easting are in feet relative to Georgia State Plane, West Zone, North America Datum of 1983 (NAD 83). TOC and ground surface elevations are in feet above mean sea level relative to North American Vertical Datum of 1988 (NAVD 88). Survey data are included in **Table 1**. A certified well survey report is provided in **Appendix C: Well Survey Document**.

5.0 REFERENCES

Southern Company Services, Inc., 2016, Draft Monitoring Well Development Procedures, Birmingham, Alabama, March 2016.

USEPA, 2013. Science and Ecosystem Support Division, Guidance: SESDGUID-101-R1 Design and Installation of Monitoring Wells, US Environmental Protection Agency, Region 4, Athens, Georgia, January 29, 2013.

USEPA, 2020. Laboratory Services and Applied Science and Division, Operating Procedure: LSASDPROC-205-R4 Field Equipment Cleaning and Decontamination, US Environmental Protection Agency, Region 4, Athens, Georgia, June 22, 2020.

TABLE

TABLE 1
SUMMARY OF WELL CONSTRUCTION

Well	Installation Date	Northing [1]	Easting [1]	Top of Casing Elevation (ft msl)[2]	Ground Surface Elevation (ft msl)[3]	Top of Screen Elevation (ft msl)[3]	Screen Bottom Elevation (ft msl)[3]	Screen Length (feet)	Total Boring Depth on Construction Log (ft below land surface)	Total Well Depth Measured (ft below TOC)[4]	Groundwater Zone Screened	Location
ARGWA-24	11/12/2020	1066895.28	2437012.63	373.75	370.85	355.9	345.9	10.0	25.3	28.13	Overburden	Upgradient

Notes:

1. Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983 (NAD 83)
2. ft msl indicates feet above mean sea level
3. Elevations referenced to North American Vertical Datum of 1988 (NAVD 88)
4. TOC indicates top of casing

Prepared by: KN 1/11/2021
Checked by: NJM 1/25/2021

FIGURE

N

ARGWA-12

ARGWA-24

ARGWA-5

ARGWA-3

Ash Pond 3

Ash Monofill

ARGWA-14

ARGWA-13

ARAMW-4

ARGWC-15

ARGWC-17

ARGWC-10

ARGWC-16

ARGWC-9

ARAMW-3

ARGWC-8

ARGWC-18

ARAMW-6

ARGWC-7

Legend

- Groundwater Monitoring Network Well Installed November 2020
- Groundwater Monitoring Network Well
- Delineation Piezometer
- Approximate Limits of Waste
- Approximate Property Boundary

0 150 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Plant Arkwright
Macon, Georgia

Monitoring Network Well Location Map

Prepared By-Date: NJM - 1/25/2021

Checked By-Date: RQ - 1/25/2021

Project Number: 6122201429

wood.

Figure: 1

APPENDIX A

WELL CONSTRUCTION AND BORING LOGS

wood.

BORING ARAMW-24

CLIENT Georgia Power
PROJECT NAME Plant Arkwright
PROJECT NUMBER 6122201429
PROJECT LOCATION Bibb County, Georgia
DATE STARTED 11/12/20 **COMPLETED** 11/12/20
GROUND ELEVATION 370.85 ft **HOLE SIZE** 6-in
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD Sonic
AT TIME OF DRILLING ---
LOGGED BY KN **CHECKED BY** NJM
AT END OF DRILLING ---
COORDINATES N:1066895.28, E: 2437012.63
AFTER DRILLING 20.41ft (11/16/2020)

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					-SILTY SAND (SM), reddish brown, medium dense, micaceous, moist, with clay. Increasing clay content with depth.	Casing Top Elev: 373.75 (ft) Casing Type: 2 in SCH 40 PVC
5						Grout
						2 in SCH 40 PVC
10					-SILTY SAND (SM), saprolite, orange-brown to light brown, very micaceous	Top of Bentonite Seal 361.35 Bentonite seal
						Top of Filter Pack 358.35
15						Top of Screen 355.9
20					(Same as above) Saprolite, yellow-brown with some large rock fragments.	Gravel Pack #1-Southern Product and Silica Co.
					20.0 350.9 -SILTY SAND (SM) saprolite, gray-brown, medium-dense,fractured, moist, with gray area from 21-22.5 feet.	10 feet of 0.01-inch slotted 2" OD PVC (SCH 40)
25					25.3	Bottom of Screen 345.9 345.6 Sump and cap (0.3 ft)

Bedrock at 25.3 feet.

APPENDIX B

WELL DEVELOPMENT FORMS

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location:

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

Well ID: ARGWA-24

Field Sampling Personnel:
DEVELOPMENT K. NYE

Depth to Screen below MP: 17.83 (Top) of screen 27.83 (Bottom) of screen

Pump Intake at (ft. below MP): VARIED

Purging Device (Pump Type): ELECTRIC SUBMERSIBLE
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Well Depth, (Ft.) 28.13
Depth To Water (Ft.) 20.41
Water Column (Ft.) 7.72
Well Volume (gal) ~1.26

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons	CHEMetrics DO mg/L (low)	Hach Ferrous Iron mg/L	Comments
11/16/20	1507	20.41	7500			OL				—	N/A	N/A	START ~ 2 GPM
	1508	DRY	—			—				2.0			
	1513	20.55	—			—				—			RECOVERY AFTER ~ 5 MIN, SURGED
	1520	20.44	5000			849				—			START, ~ 1.5 GPM
	1525	25.20	—			—				6.0			STOPPED, NOT DRY, SURGED
	1531	20.60	3000			791				—			STARTED ~ 0.8 GPM
	1536	21.65	3000			329				10.0			
	1541	22.71	3000			31.3				14.0			
	1545	—	—			—				17.0			BLOCKAGE @ FLOW VALVE, CLEARED, SURGED
	1602	20.50	3800			OL				—			START ~ 1.0 GPM
	1604	22.44	1900			624				19.0			SLOWED RATE
	1606	21.89	1900			368				20.0			INCREASED RATE, ~ 0.5 GPM
	1608	22.65	3800			243				22.0			~ 1.0 GPM, DECREASING RATE
	1613	23.02	3000			57.6				26.0			~ 0.8 GPM
	1623	23.04	—			1.78				34.0			STOPPED TO SURGE
	1626	21.95	3000			—				—			STARTED ~ 0.8 GPM
	1629	22.74	3000			467				36.5			
	1632	22.63	2300			74.7				39.0			↓ RATE ~ 0.6 GPM
	1638	22.94	3000			3.58				44.0			↑ RATE ~ 0.8 GPM
	1648	22.98	—			1.06				52.0			STOPPED TO SURGE
	1651	21.90	3000			—				—			RESTART
	1655	22.66	3000			105				55.0			

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings) ±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<10 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

Well Casing Volume (Gal):
2" diameter well: Water column (ft.) x 0.163
4" diameter well: Water column x 0.653

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location:

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

Well ID: ARGWA-24

Field Sampling Personnel:
DEVELOPMENT K.NYE

Depth to Screen below MP: 17.83 of screen (Top) 27.83 of screen (Bottom)

Pump Intake at (ft. below MP): VARIED

Purging Device (Pump Type): ELECTRIC SUBMERSIBLE
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Well Depth, (Ft.) 28.13
Depth To Water (Ft.) 20.41
Water Column (Ft.) 7.72
Well Volume (gal) ~1.26

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons	CHEMetrics DO mg/L (low)	Hach Ferrous Iron mg/L	Comments
11/16/20	1705	22.83	—			3.24				63.0	N/A	N/A	STOPPED TO SURGE
	1708	20.90	3000			—				—			RESTART
	1711	22.65	3000			206				65.5			
	1716	22.97	3000			49.5				69.5			
	1718	23.08	3000			18.2				72.0			SURGE WHILE PUMPING
	1728	22.72	3000			194				80.0			TURB ↑ AFTER SURGE, THEN ↓
	1732	23.06	3000			15.4				83.0			
	1741	22.82	3000	5.68	0.165	1.79	3.59	18.98	172.0	90.0			STARTED LOGGER (YSI 556)
	1746	22.90	3000	5.69	0.165	1.25	3.62	19.12	175.9	94.0			
	1751	22.71	2500	—	—	—	—	—	—	97.3			LOGGER STOPPED
	1753	22.65	2500	5.67	0.163	0.68	3.55	19.23	178.3	98.6			RESTARTED LOGGER
	1758	22.51	2500	5.69	0.165	0.53	3.59	19.25	179.2	101.5			
	1803	22.43	2500	5.70	0.165	0.47	3.60	19.26	179.7	108.5			
	1813	22.39	2500	5.71	0.165	0.49	3.59	19.26	179.7	111.8			
	1818	22.36	2500	5.71	0.165	0.44	3.60	19.25	179.7	115.1			

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings) ±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<10 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

Well Casing Volume (Gal):
2" diameter well: Water column (ft.) x 0.163
4" diameter well: Water column x 0.653

APPENDIX C

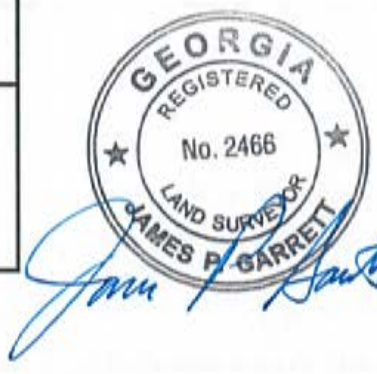
WELL SURVEY DOCUMENTS

GEORGIA POWER
PLANT ARKWRIGHT
MONITORING WELL SURVEY DATA
December 18, 2020
DGA JOB # 6620-002-D1, C1335

WELL ID	NORTHING	EASTING	ELEVATIONS			
			GROUND	NAIL	TOP OF	TOP OF
			ELEVATION	IN CONCRETE	WELL PAD	CASING
AP3PZ-1	1066652.20	2436953.26	361.53		NO PAD	364.22
AP3PZ-1A	1066656.17	2436950.62	361.37		NO PAD	364.36
AP3PZ-2	1065960.86	2437314.65	361.69		NO PAD	364.93
AP3PZ-2A	1065955.86	2437317.22	361.55		NO PAD	364.74
AP3PZ-3	1065501.28	2437527.97	360.11		NO PAD	362.69
AP3PZ-3A	1065495.58	2437530.17	360.25		NO PAD	363.23
AP3PZ-4	1065047.94	2437729.54	358.54		NO PAD	361.32
AP3PZ-4A	1065042.69	2437732.09	358.56		NO PAD	361.57
AP3PZ-5A	1064633.46	2437909.87	357.02		NO PAD	360.14
ARAMW-1	1062938.38	2439120.01	305.07		305.49	308.51
ARAMW-2	1062925.96	2439114.97	305.12		305.23	308.27
ARAMW-3	1064530.73	2437569.81	352.20		352.41	355.39
ARAMW-4	1065463.83	2438004.43	364.56	364.83		367.86
ARAMW-6	1064439.35	2437606.99	334.23		334.56	337.46
ARAMW-7	1063049.07	2438913.27	307.13	307.13		309.81
ARAMW-8	1062895.98	2439197.40	304.53	304.94		307.36
ARGWA-12	1067003.79	2436788.45	369.27		369.56	372.72
ARGWA-13	1065951.25	2438129.93	368.10		368.72	371.57
ARGWA-14	1066023.70	2438384.80	384.94		385.46	388.25
ARGWA-19	1063774.45	2439488.71	339.86		340.38	343.30
ARGWA-20	1063732.73	2439088.01	327.73		328.37	331.28
ARGWA-24	1066895.28	2437012.63	370.85	371.08		373.75
ARGWA-3	1066899.39	2437431.05	386.53		386.94	388.33
ARGWA-5	1066885.12	2437209.22	373.51		373.69	376.15
ARGWC-10	1065419.44	2437192.51	367.56		367.77	370.67
ARGWC-15	1065475.43	2438360.90	371.76		372.51	375.64
ARGWC-16	1065263.69	2438174.15	361.52		361.98	364.90
ARGWC-17	1065458.82	2438009.52	365.04		365.31	368.24
ARGWC-18	1064482.45	2437961.15	351.92		352.42	355.20
ARGWC-21	1062941.24	2439112.52	305.97		306.34	309.15
ARGWC-22	1063039.36	2438925.04	307.01		307.08	309.95
ARGWC-23	1062884.38	2439202.38	304.29		304.67	307.70
ARGWC-7	1064410.59	2438355.19	348.97		349.13	352.42
ARGWC-8	1064521.98	2437572.92	352.19		352.26	355.53
ARGWC-9	1065139.64	2437297.96	363.44		363.87	367.07
CCRLF-1	1065801.62	2437806.69	354.06	354.39		357.51
CCRLF-2	1066565.98	2437457.04	367.27	367.64		370.67
CCRLF-3	1066338.44	2437920.60	372.06	372.37		375.19
CCRLF-4	1066801.77	2437509.61	370.11	370.47		373.35
CCRLF-5	1066251.06	2438257.93	385.88	386.16		388.73
INV. 24" PIPE	1064401.47	2437857.62	318.50			
WET WELL	1064422.09	2437710.35			330.81	329.20 (TOP OF WELL PIPE)

COORDINATES ARE GA STATE PLANE, WEST ZONE, NAD 83.
ELEVATIONS ARE BASED ON MEAN SEA LEVEL, NAVD 88.

Survey data shown below has a horizontal positional tolerance of +/-0.5 feet and a vertical positional tolerance of +/- 0.01 feet at the 95% level of confidence.
Equipment used to obtain horizontal and vertical coordinates was a LEICA SYSTEM 1200 GPS RECEIVER WITH A LEICA RX1200 DATA COLLECTOR.
Benchmark used to establish horizontal and vertical positions was established from LEICA SMARTNET REAL TIME NETWORK.



APPENDIX B

FIELD SAMPLING LOGS AND ANALYTICAL DATA REPORTS

Well ID	Sample Date	Purge Volume (liter)	Time Elapsed (secs)	DTW (feet, TOC)	Drawdown (feet)	Temperature (C)	pH (su)	Specific Conductance (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)
ARAMW-3	8/20/20	7.5	2700	26.18	0.61	21.26	6.24	340.40	3.37	0.15	-26.2
ARAMW-3	9/30/20	19.4	7206	25.70	0.37	20.41	6.41	355.90	4.81	6.52	-2.6
ARAMW-3	2/10/21	3.5	1800	24.84	0.29	18.70	6.15	321.60	1.80	0.21	36.0
ARAMW-4	8/20/20	7.5	2700	21.54	0.10	20.55	5.77	1687.30	0.60	0.13	17.8
ARAMW-4	9/30/20	19.0	6901	21.43	-0.05	19.58	5.94	1542.00	4.84	6.98	4.9
ARAMW-4	2/10/21	7.5	1800	21.49	0.09	18.97	5.64	1737.60	2.14	0.10	87.7
ARAMW-6	8/21/20	7.3	2100	14.34	0.89	21.08	6.32	364.10	0.15	0.15	1.9
ARAMW-6	10/1/20	22.5	8102	13.87	0.44	21.37	6.37	359.70	4.74	0.21	10.6
ARAMW-6	2/9/21	5.7	2100	13.28	0.40	19.98	6.34	360.30	3.62	0.38	243.3
ARAMW-7	2/11/21	5.5	2100	12.88	0.27	18.03	5.67	1815.00	2.87	0.17	-27.2
ARAMW-8	2/11/21	5.8	3300	16.01	4.77	18.79	6.95	651.50	2.49	0.54	-94.1
ARGWA-3	8/18/20	10.0	3000	34.82	0.16	19.50	6.47	74.20	4.52	6.87	86.8
ARGWA-3	9/29/20	9.0	2700	34.92	0.29	19.24	6.02	87.41	3.91	6.57	74.0
ARGWA-3	2/9/21	6.0	1800	34.72	0.05	19.14	5.94	86.69	0.50	5.70	43.8
ARGWA-5	8/18/20	7.0	2100	23.15	0.12	17.73	6.18	81.30	0.77	6.36	86.4
ARGWA-5	9/29/20	8.0	2400	23.11	0.18	18.70	6.00	0.09	0.58	6.01	80.3
ARGWA-5	2/9/21	9.0	2701	23.96	1.11	18.54	5.88	89.18	0.76	4.97	47.1
ARGWA-12	8/18/20	7.0	2100	15.49	0.39	21.25	6.48	188.30	3.85	2.87	112.8
ARGWA-12	9/29/20	6.0	1800	15.65	0.54	19.61	5.88	193.81	3.38	3.00	90.3
ARGWA-12	2/9/21	7.0	1500	15.47	1.20	17.76	5.92	213.20	0.74	3.07	206.3
ARGWA-13	8/18/20	8.0	2100	23.79	0.45	19.61	6.15	1136.40	1.01	1.12	94.3
ARGWA-13	9/29/20	7.0	2100	23.88	0.34	18.10	5.75	1188.34	0.24	1.05	119.5
ARGWA-13	2/9/21	6.0	1800	24.15	0.42	17.10	5.79	1107.60	0.30	2.04	158.0
ARGWA-14	8/19/20	4.7	3000	48.54	6.71	22.51	6.24	250.34	0.75	4.13	120.8
ARGWA-14	9/29/20	4.0	3000	48.31	6.24	19.73	6.80	218.80	0.85	5.76	46.0
ARGWA-14	2/11/21	4.6	3600	49.64	4.93	16.13	6.67	403.10	0.71	6.14	69.2
ARGWA-24	2/9/2021	9.0	2100	20.15	0.11	18.57	5.69	161.30	0.81	2.17	196.6
ARGWC-7	8/18/20	8.0	2401	22.43	0.25	19.24	6.70	143.90	0.51	3.65	89.3
ARGWC-7	9/29/20	7.0	2100	22.48	0.26	18.71	5.92	0.16	0.38	4.06	70.3
ARGWC-7	2/10/21	8.0	1800	22.87	0.14	18.99	5.77	155.90	0.19	4.64	310.9
ARGWC-8	8/20/20	9.0	2700	26.63	0.48	20.30	6.34	451.70	4.06	0.12	97.1
ARGWC-8	10/1/20	11.8	3900	26.02	0.12	21.02	6.44	452.60	4.48	0.18	22.9
ARGWC-8	2/10/21	4.4	1800	25.25	0.12	18.50	6.45	439.40	2.91	0.28	45.5
ARGWC-9	8/19/20	35.0	5701	21.13	0.35	19.42	7.21	70.90	4.62	6.35	72.9
ARGWC-9	10/1/20	19.0	2700	20.88	0.26	20.53	5.78	79.16	3.43	6.57	87.9
ARGWC-9	2/10/21	11.0	3600	20.10	0.28	20.27	5.91	77.19	2.08	5.56	57.8
ARGWC-10	8/19/20	33.0	9901	21.63	0.36	19.32	7.06	91.20	4.89	4.34	70.4
ARGWC-10	10/1/20	16.0	4800	21.58	0.28	19.37	5.83	103.94	3.91	4.36	80.3
ARGWC-10	2/9/21	15.7	4207	20.59	0.12	18.02	5.94	105.80	3.17	4.16	79.3
ARGWC-15	8/19/20	3.6	2400	31.72	3.50	21.08	6.51	214.46	1.48	3.77	185.1
ARGWC-15	9/29/20	2.6	1800	31.14	2.71	19.30	7.11	244.60	2.02	3.98	40.4
ARGWC-15	2/9/21	2.2	1500	31.56	2.66	17.34	6.43	230.40	1.74	2.99	68.8
ARGWC-16	8/19/20	7.4	2100	20.14	0.02	20.16	5.25	538.94	0.20	0.68	231.2

Well ID	Sample Date	Purge Volume (liter)	Time Elapsed (secs)	DTW (feet, TOC)	Drawdown (feet)	Temperature (C)	pH (su)	Specific Conductance (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)
ARGWC-16	9/29/20	8.0	2400	20.38	0.17	18.83	5.50	496.46	0.21	0.58	86.7
ARGWC-16	2/9/21	7.0	2100	20.27	0.10	19.70	5.24	488.93	0.47	0.39	75.6
ARGWC-17	8/18/20	9.5	2400	22.24	0.58	21.02	5.08	224.39	2.24	0.32	215.5
ARGWC-17	9/29/20	8.9	2400	22.30	0.58	19.06	5.75	208.90	2.58	0.26	44.1
ARGWC-17	2/9/21	7.1	1800	22.22	0.57	18.35	5.17	194.70	3.19	0.30	74.4
ARGWC-18	8/20/20	28.0	20408	2862.00	2833.72	23.79	6.43	592.00	26.30	0.38	214.8
ARGWC-18	9/30/20	40.0	9316	28.61	0.28	22.27	5.98	576.61	11.00	0.23	72.8
ARGWC-18	2/10/21	14.0	8105	28.22	0.17	19.33	5.99	619.59	4.81	0.25	79.8

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ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-109846-1
Client Project/Site: CCR - Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
9/24/2020 4:40:14 PM

Shali Brown, Project Manager II
(615)301-5031
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PA Lab ID: 02-00416

Table of Contents

Job ID: 180-109846-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-109846-1

Comments
No additional comments.

Receipt
The samples were received on 8/20/2020 9:30 AM, 8/21/2020 9:45 AM and 8/22/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 1.1° C, 1.2° C, 1.5° C, 1.6° C, 2.1° C, 2.4° C, 2.6° C, 2.7° C and 3.6° C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-10 (180-109848-1). The container labels list an id of GWC-10 while the COC lists ARGWC10.
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-9 (180-109848-3). The container labels list an id of GWC-9 while the COC lists ARGWC-9. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-5 (180-109850-1). The container labels list an id of GWA-5 while the COC lists ARGWA-5.
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-3 (180-109850-2). The container labels list an id of GWA-3 while the COC lists ARGWA-3.
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-7 (180-109850-3). The container labels list an id of GWC-7 while the COC lists ARGWC-7. The id's on the Coc were used.

GC Semi VOA
Method 300.0: The matrix spike and matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 180-326478 were outside control limits for Fluoride: (180-109846-B-2 MS) and (180-109846-B-2 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Methods 6020A, 6020B: The ICVL failed high for tin. Another (ICVL 180-330300/6) made from a separate stock solution was run and passes for 6020B method with 103% recovery ; therefore, the data has been reported.

Method 6020B: The method blank for preparation batch 180-327642 contained boron above the reporting limit (RL). None of the samples associated with this method blank contained the target compound above the RL; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 6020B: The method blank for preparation batch 180-327640 contained zinc above the reporting limit (RL). None of the samples associated with this method blank contained the target compound above the RL; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 7470A: The continuing calibration verification (CCV) associated with batch 180-328261 recovered above the upper control limit for mercury. The samples associated with this CCV were non-detects for the affected analytes or were below the reporting limit (RL); therefore, the data have been reported.

Method 7470A: The low level continuing calibration verification (CCVL) associated with batch 180-328261 recovered above the upper control limit for mercury. The samples associated with this CCVL were non-detects for the affected analytes or below the reporting limit (RL); therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 180-109846-1 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	02-01-21

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-109846-1	ARGWA-14	Water	08/19/20 13:55	08/20/20 09:30	
180-109846-2	ARGWC-15	Water	08/19/20 10:05	08/20/20 09:30	
180-109846-3	ARGWC-16	Water	08/19/20 12:05	08/20/20 09:30	
180-109847-1	FB#1	Water	08/18/20 11:00	08/20/20 09:30	
180-109847-2	ARGWA-12	Water	08/18/20 13:00	08/20/20 09:30	
180-109847-3	ARGWA-13	Water	08/18/20 14:50	08/20/20 09:30	
180-109847-4	ARGWC-17	Water	08/18/20 14:45	08/20/20 09:30	
180-109848-1	ARGWC-10	Water	08/19/20 11:35	08/20/20 09:30	
180-109848-2	DUP-1	Water	08/19/20 00:00	08/20/20 09:30	
180-109848-3	ARGWC-9	Water	08/19/20 14:25	08/20/20 09:30	
180-109850-1	ARGWA-5	Water	08/18/20 11:35	08/20/20 09:30	
180-109850-2	ARGWA-3	Water	08/18/20 13:20	08/20/20 09:30	
180-109850-3	ARGWC-7	Water	08/18/20 15:25	08/20/20 09:30	
180-109851-1	EB#2	Water	08/19/20 09:15	08/20/20 09:30	
180-109851-2	ARGWA-19	Water	08/19/20 10:56	08/20/20 09:30	
180-109851-3	ARGWA-20	Water	08/19/20 13:44	08/20/20 09:30	
180-109851-4	ARGWC-22	Water	08/19/20 15:32	08/20/20 09:30	
180-109918-1	FB#2	Water	08/20/20 10:45	08/21/20 09:45	
180-109918-2	ARGWC-23	Water	08/20/20 12:15	08/21/20 09:45	
180-109918-3	DUP-2	Water	08/20/20 00:00	08/21/20 09:45	
180-109918-4	ARAMW-1	Water	08/20/20 14:36	08/21/20 09:45	
180-109918-5	ARAMW-2	Water	08/20/20 16:35	08/21/20 09:45	
180-109929-1	ARGWC-8	Water	08/20/20 10:35	08/21/20 09:45	
180-109929-2	ARGWC-18	Water	08/20/20 17:05	08/21/20 09:45	
180-109930-1	EB#1	Water	08/20/20 09:30	08/21/20 09:45	
180-109930-2	ARAMW-3	Water	08/20/20 14:45	08/21/20 09:45	
180-109930-3	ARAMW-4	Water	08/20/20 11:45	08/21/20 09:45	
180-109970-1	ARAMW-6	Water	08/21/20 09:45	08/22/20 10:00	
180-109970-2	ARGWC-21	Water	08/21/20 10:36	08/22/20 10:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
Filtration	Sample Filtration	None	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-14

Lab Sample ID: 180-109846-1
Date Collected: 08/19/20 13:55
Matrix: Water
Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326785	08/24/20 08:46	EPS	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:08	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:09	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 13:55	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-15

Lab Sample ID: 180-109846-2
Date Collected: 08/19/20 10:05
Matrix: Water
Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326478	08/21/20 13:28	MJH	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:11	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:13	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 10:05	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-16

Lab Sample ID: 180-109846-3
Date Collected: 08/19/20 12:05
Matrix: Water
Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326785	08/24/20 09:01	EPS	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:36	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:14	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 12:05	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#1

Lab Sample ID: 180-109847-1

Date Collected: 08/18/20 11:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326917	08/25/20 11:35	MJH	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:40	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:15	RJR	TAL PIT
	Instrument ID: HGY									

Client Sample ID: ARGWA-12

Lab Sample ID: 180-109847-2

Date Collected: 08/18/20 13:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326917	08/25/20 11:50	MJH	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:43	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:16	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 13:00	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-13

Lab Sample ID: 180-109847-3

Date Collected: 08/18/20 14:50

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 14:31	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:47	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:17	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 14:50	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-17

Lab Sample ID: 180-109847-4

Date Collected: 08/18/20 14:45

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 14:47	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:50	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:21	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 14:45	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-10

Lab Sample ID: 180-109848-1

Date Collected: 08/19/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 05:59	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 21:54	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:22	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 11:35	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1

Lab Sample ID: 180-109848-2

Date Collected: 08/19/20 00:00

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 06:46	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 22:06	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:23	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 00:00	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-9

Lab Sample ID: 180-109848-3

Date Collected: 08/19/20 14:25

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 07:02	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327640	08/28/20 15:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 22:10	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:24	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 14:25	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-5

Lab Sample ID: 180-109850-1

Date Collected: 08/18/20 11:35

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 07:50	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 17:56	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:25	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 11:35	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-3

Lab Sample ID: 180-109850-2

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 08:06	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:14	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:26	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 13:20	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-7

Lab Sample ID: 180-109850-3

Date Collected: 08/18/20 15:25

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 08:21	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:18	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:27	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/18/20 15:25	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EB#2

Lab Sample ID: 180-109851-1

Date Collected: 08/19/20 09:15

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 10:19	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:21	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:28	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326608	08/21/20 11:11	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-19

Lab Sample ID: 180-109851-2

Date Collected: 08/19/20 10:56

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 11:50	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:25	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:29	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 10:56	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-20

Lab Sample ID: 180-109851-3

Date Collected: 08/19/20 13:44

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 12:06	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:36	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:30	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 13:44	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-22

Lab Sample ID: 180-109851-4

Date Collected: 08/19/20 15:32

Matrix: Water

Date Received: 08/20/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326890	08/25/20 10:35	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 300.0 R2.1		10			326890	08/25/20 11:31	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330300	09/17/20 18:39	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	327642	08/28/20 15:10	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330464	09/18/20 13:03	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	328121	09/02/20 05:45	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328261	09/02/20 15:34	RJR	TAL PIT
	Instrument ID: HGY									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326608	08/21/20 11:11	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			326626	08/19/20 15:32	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: FB#2

Lab Sample ID: 180-109918-1

Date Collected: 08/20/20 10:45

Matrix: Water

Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326777	08/24/20 14:46	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:16	DSH	TAL PIT
	Instrument ID: DORY									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#2

Lab Sample ID: 180-109918-1
Date Collected: 08/20/20 10:45
Matrix: Water
Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:53	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326682	08/22/20 08:53	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-23

Lab Sample ID: 180-109918-2
Date Collected: 08/20/20 12:15
Matrix: Water
Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326777	08/24/20 13:43	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:19	DSH	TAL PIT
	Instrument ID: DORY									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329474	09/11/20 22:34	DSH	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:54	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326682	08/22/20 08:53	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 12:15	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-2

Lab Sample ID: 180-109918-3
Date Collected: 08/20/20 00:00
Matrix: Water
Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326777	08/24/20 13:59	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:23	DSH	TAL PIT
	Instrument ID: DORY									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			330720	09/21/20 15:00	RSK	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:57	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	326682	08/22/20 08:53	AVS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: DUP-2
Date Collected: 08/20/20 00:00
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 00:00	FDS	TAL PIT

Client Sample ID: ARAMW-1
Date Collected: 08/20/20 14:36
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326785	08/24/20 10:29	EPS	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:26	DSH	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:58	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 14:36	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-2
Date Collected: 08/20/20 16:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			326777	08/24/20 12:32	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:30	DSH	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:59	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 16:35	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-8
Date Collected: 08/20/20 10:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 06:26	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:33	DSH	TAL PIT
	Instrument ID: DORY									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-8

Date Collected: 08/20/20 10:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:00	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 10:35	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-18

Date Collected: 08/20/20 17:05
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 11:27	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Filtration	Filtration			250 mL	250 mL	326831	08/24/20 09:48	TJO	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			329135	09/10/20 01:40	DSH	TAL PIT
	Instrument ID: DORY									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:37	DSH	TAL PIT
	Instrument ID: DORY									
Dissolved	Filtration	Filtration			250 mL	250 mL	326831	08/24/20 09:48	TJO	TAL PIT
Dissolved	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Dissolved	Analysis	EPA 7470A		1			328649	09/05/20 10:03	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:01	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 17:05	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EB#1

Date Collected: 08/20/20 09:30
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 11:59	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:00	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:44	DSH	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:04	RJR	TAL PIT
	Instrument ID: HGZ									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-3

Date Collected: 08/20/20 14:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 13:02	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:01	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 01:55	DSH	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328516	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 10:05	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 14:45	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-4

Date Collected: 08/20/20 11:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327077	08/26/20 11:11	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	328062	09/01/20 16:04	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			329135	09/10/20 02:12	DSH	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328515	09/04/20 08:35	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328649	09/05/20 09:50	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/20/20 11:45	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-6

Date Collected: 08/21/20 09:45
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327578	08/28/20 15:07	MJH	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	328065	09/01/20 16:08	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			328773	09/04/20 22:07	RJR	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328636	09/05/20 06:15	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328684	09/07/20 08:48	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/21/20 09:45	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-21

Date Collected: 08/21/20 10:36
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			327578	08/28/20 15:21	MJH	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	328065	09/01/20 16:08	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			328773	09/04/20 22:10	RJR	TAL PIT
	Instrument ID: DORY									
Total/NA	Prep	7470A			50 mL	50 mL	328636	09/05/20 06:15	RJR	TAL PIT
Total/NA	Analysis	EPA 7470A		1			328684	09/07/20 08:49	RJR	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	Field Sampling		1			327279	08/21/20 10:36	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Filtration
- TJO = Tyler Oliver

Batch Type: Prep
- RJR = Ron Rosenbaum
- TJO = Tyler Oliver

Batch Type: Analysis
- AVS = Abbey Smith
- DSH = David Heakin
- EPS = Evan Scheuer
- FDS = Sampler Field
- MJH = Matthew Hartman
- RJR = Ron Rosenbaum
- RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-14

Date Collected: 08/19/20 13:55
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.12**		0.10	0.026	mg/L			08/24/20 08:46	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:08	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:08	1
Barium	**0.041**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:08	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:08	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:08	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:08	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:08	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:08	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:08	1
Molybdenum	**0.00065**	**J**	0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:08	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:08	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:08	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.62**				SU			08/19/20 13:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-15

Date Collected: 08/19/20 10:05
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.081**	**J F1**	0.10	0.026	mg/L			08/21/20 13:28	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:11	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:11	1
Barium	**0.028**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:11	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:11	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:11	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:11	1
Cobalt	**0.00040**	**J**	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:11	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:11	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:11	1
Molybdenum	**0.0016**	**J**	0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:11	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:11	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:11	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:13	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.47**				SU			08/19/20 10:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-16

Date Collected: 08/19/20 12:05
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 09:01	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:36	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:36	1
Barium	**0.045**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:36	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:36	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:36	1
Chromium	**0.0021**		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:36	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:36	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:36	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:36	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:36	1
Selenium	**0.0029**	**J**	0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:36	1
Thallium	**0.00027**	**J**	0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.24**				SU			08/19/20 12:05	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#1

Date Collected: 08/18/20 11:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 11:35	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:40	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:40	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:40	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:15	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-12

Date Collected: 08/18/20 13:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.041**	**J**	0.10	0.026	mg/L			08/25/20 11:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:43	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:43	1
Barium	**0.079**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:43	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:43	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:43	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:43	1
Cobalt	**0.00019**	**J**	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:43	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:43	1
Lithium	**0.0039**	**J**	0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:43	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:43	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:43	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:43	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.48**				SU			08/18/20 13:00	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-13

Date Collected: 08/18/20 14:50
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 14:31	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:47	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:47	1
Barium	**0.025**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:47	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:47	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:47	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:47	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:47	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:47	1
Lithium	**0.0042**	**J**	0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:47	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:47	1
Selenium	**0.019**		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:47	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:47	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.15**				SU			08/18/20 14:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-17

Date Collected: 08/18/20 14:45
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 14:47	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:50	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:50	1
Barium	**0.062**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:50	1
Beryllium	**0.00039**	**J**	0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:50	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:50	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:50	1
Cobalt	**0.030**		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:50	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:50	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:50	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:50	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:50	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:50	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:21	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.07**				SU			08/18/20 14:45	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-10

Date Collected: 08/19/20 11:35
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 05:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 21:54	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 21:54	1
Barium	**0.034**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 21:54	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 21:54	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 21:54	1
Chromium	**0.0049**		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 21:54	1
Cobalt	**0.00015**	**J**	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 21:54	1
Lead	**0.00013**	**J**	0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 21:54	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 21:54	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 21:54	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 21:54	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 21:54	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.06**				SU			08/19/20 11:35	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: DUP-1

Date Collected: 08/19/20 00:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 06:46	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 22:06	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 22:06	1
Barium	**0.034**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 22:06	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 22:06	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 22:06	1
Chromium	**0.0051**		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 22:06	1
Cobalt	**0.00020**	**J**	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 22:06	1
Lead	**0.00016**	**J**	0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 22:06	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 22:06	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 22:06	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 22:06	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 22:06	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:23	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.06**				SU			08/19/20 00:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-9

Date Collected: 08/19/20 14:25
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 07:02	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 22:10	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 22:10	1
Barium	**0.046**		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 22:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 22:10	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 22:10	1
Chromium	**0.0080**		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 22:10	1
Cobalt	**0.00013**	**J**	0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 22:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 22:10	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 22:10	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 22:10	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 22:10	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 22:10	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.21**				SU			08/19/20 14:25	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-5

Date Collected: 08/18/20 11:35
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 07:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 17:56	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 17:56	1
Barium	**0.031**		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 17:56	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 17:56	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 17:56	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 17:56	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 17:56	1
Lead	**0.00013**	**J**	0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 17:56	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 17:56	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 17:56	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 17:56	1
Thallium	**0.00021**	**J**	0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 17:56	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.18**				SU			08/18/20 11:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-3

Date Collected: 08/18/20 13:20
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 08:06	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:14	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:14	1
Barium	**0.021**		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:14	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:14	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:14	1
Chromium	**0.0027**		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:14	1
Cobalt	**0.00022**	**J**	0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:14	1
Lead	**0.00019**	**J**	0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:14	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:14	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:14	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:14	1
Thallium	**0.00036**	**J**	0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:14	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.47**				SU			08/18/20 13:20	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-7

Date Collected: 08/18/20 15:25
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 08:21	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:18	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:18	1
Barium	**0.044**		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:18	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:18	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:18	1
Chromium	**0.0031**		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:18	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:18	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:18	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:18	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:18	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:18	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:18	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.70**				SU			08/18/20 15:25	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: EB#2

Date Collected: 08/19/20 09:15
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			08/25/20 10:19	1
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 10:19	1
Sulfate	<0.38		1.0	0.38	mg/L			08/25/20 10:19	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:21	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:21	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:21	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:21	1
Boron	<0.039	^	0.080	0.039	mg/L		08/28/20 15:10	09/17/20 18:21	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:21	1
Calcium	<0.13		0.50	0.13	mg/L		08/28/20 15:10	09/17/20 18:21	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:21	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:21	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:21	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:21	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:21	1
Thallium	**0.00015**	**J**	0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:21	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/21/20 11:11	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-19

Date Collected: 08/19/20 10:56
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 11:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:25	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:25	1
Barium	**0.044**		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:25	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:25	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:25	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:25	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:25	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:25	1
Lithium	**0.0038**	**J**	0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:25	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:25	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:25	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:25	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:29	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.25**				SU			08/19/20 10:56	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWA-20

Date Collected: 08/19/20 13:44
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 12:06	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:36	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:36	1
Barium	**0.085**		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:36	1
Beryllium	**0.00022**	**J**	0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:36	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:36	1
Chromium	**0.0063**		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:36	1
Cobalt	**0.00064**	**J**	0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:36	1
Lead	**0.00039**	**J**	0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:36	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:36	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:36	1
Selenium	**0.0015**	**J**	0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:36	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:36	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.16**				SU			08/19/20 13:44	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-22

Date Collected: 08/19/20 15:32
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.7**		1.0	0.32	mg/L			08/25/20 10:35	1
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 10:35	1
Sulfate	**1000**		10	3.8	mg/L			08/25/20 11:31	10

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 18:39	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 18:39	1
Barium	**0.046**		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 18:39	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 18:39	1
Boron	**1.3**		0.080	0.039	mg/L		08/28/20 15:10	09/18/20 13:03	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 18:39	1
Calcium	**220**	**B**	0.50	0.13	mg/L		08/28/20 15:10	09/17/20 18:39	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 18:39	1
Cobalt	**0.0032**		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 18:39	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 18:39	1
Lithium	**0.026**		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 18:39	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 18:39	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 18:39	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 18:39	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1400**		10	10	mg/L			08/21/20 11:11	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.21**				SU			08/19/20 15:32	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: FB#2

Date Collected: 08/20/20 10:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			08/24/20 14:46	1
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 14:46	1
Sulfate	<0.38		1.0	0.38	mg/L			08/24/20 14:46	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:16	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:16	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:16	1
Boron	**0.056**	**J ^**	0.080	0.039	mg/L		09/01/20 16:00	09/10/20 01:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:16	1
Calcium	<0.13		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 01:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:16	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:16	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:16	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:16	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:16	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/22/20 08:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-23

Date Collected: 08/20/20 12:15
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.9**		1.0	0.32	mg/L			08/24/20 13:43	1
Fluoride	**0.19**		0.10	0.026	mg/L			08/24/20 13:43	1
Sulfate	**69**		1.0	0.38	mg/L			08/24/20 13:43	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:19	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:19	1
Barium	**0.16**		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:19	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:19	1
Boron	**0.44**		0.080	0.039	mg/L		09/01/20 16:00	09/11/20 22:34	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:19	1
Calcium	**69**		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 01:19	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:19	1
Cobalt	**0.0023**	**J**	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:19	1
Lithium	**0.036**		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:19	1
Molybdenum	**0.061**		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:19	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:19	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**310**		10	10	mg/L			08/22/20 08:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.33**				SU			08/20/20 12:15	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: DUP-2
Date Collected: 08/20/20 00:00
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-3
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.9**		1.0	0.32	mg/L			08/24/20 13:59	1
Fluoride	**0.19**		0.10	0.026	mg/L			08/24/20 13:59	1
Sulfate	**70**		1.0	0.38	mg/L			08/24/20 13:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:23	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:23	1
Barium	**0.16**		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:23	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:23	1
Boron	**0.40**		0.080	0.039	mg/L		09/01/20 16:00	09/21/20 15:00	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:23	1
Calcium	**68**		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 01:23	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:23	1
Cobalt	**0.0022**	**J**	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:23	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:23	1
Lithium	**0.035**		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:23	1
Molybdenum	**0.061**		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:23	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:23	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:23	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**310**		10	10	mg/L			08/22/20 08:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.33**				SU			08/20/20 00:00	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-1

Date Collected: 08/20/20 14:36
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.23**		0.10	0.026	mg/L			08/24/20 10:29	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:26	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:26	1
Barium	**0.055**		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:26	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:26	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:26	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:26	1
Cobalt	**0.0010**	**J**	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:26	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:26	1
Lithium	**0.0066**		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:26	1
Molybdenum	**0.0076**	**J**	0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:26	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:26	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:26	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:58	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.09**				SU			08/20/20 14:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-2

Date Collected: 08/20/20 16:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-5

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 12:32	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:30	1
Arsenic	**0.084**		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:30	1
Barium	**0.14**		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:30	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:30	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:30	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:30	1
Cobalt	**0.0022**	**J**	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:30	1
Lithium	**0.036**		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:30	1
Molybdenum	**0.0013**	**J**	0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:30	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:30	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:30	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.99**				SU			08/20/20 16:35	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-8

Date Collected: 08/20/20 10:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.054**	**J**	0.10	0.026	mg/L			08/26/20 06:26	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:33	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:33	1
Barium	**0.053**		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:33	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:33	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:33	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:33	1
Cobalt	**0.00023**	**J**	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:33	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:33	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:33	1
Molybdenum	**0.042**		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:33	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:33	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:33	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.34**				SU			08/20/20 10:35	1

Client Sample ID: ARGWC-18

Date Collected: 08/20/20 17:05
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 11:27	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:37	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:37	1
Barium	**0.041**		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:37	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:37	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:37	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:37	1
Cobalt	**0.0015**	**J**	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:37	1
Lead	**0.00028**	**J**	0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:37	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:37	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:37	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:37	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:37	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:40	1
Barium	**0.037**		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:40	1
Cobalt	**0.0013**	**J**	0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:40	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:01	1

Method: EPA 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:03	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.43**				SU			08/20/20 17:05	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: EB#1

Date Collected: 08/20/20 09:30
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 11:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 01:44	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 01:44	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 01:44	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 01:44	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 01:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 01:44	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 01:44	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 01:44	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 01:44	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 01:44	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 01:44	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 01:44	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:04	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-3

Date Collected: 08/20/20 14:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 13:02	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:01	09/10/20 01:55	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:01	09/10/20 01:55	1
Barium	**0.093**		0.010	0.0016	mg/L		09/01/20 16:01	09/10/20 01:55	1
Beryllium	<0.00018	^	0.0025	0.00018	mg/L		09/01/20 16:01	09/10/20 01:55	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:01	09/10/20 01:55	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:01	09/10/20 01:55	1
Cobalt	**0.00056**	**J**	0.0025	0.00013	mg/L		09/01/20 16:01	09/10/20 01:55	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:01	09/10/20 01:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:01	09/10/20 01:55	1
Molybdenum	**0.0029**	**J**	0.015	0.00061	mg/L		09/01/20 16:01	09/10/20 01:55	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:01	09/10/20 01:55	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:01	09/10/20 01:55	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.24**				SU			08/20/20 14:45	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-4

Date Collected: 08/20/20 11:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 11:11	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:04	09/10/20 02:12	1
Arsenic	**0.00034**	**J**	0.0010	0.00031	mg/L		09/01/20 16:04	09/10/20 02:12	1
Barium	**0.053**		0.010	0.0016	mg/L		09/01/20 16:04	09/10/20 02:12	1
Beryllium	<0.00018	^	0.0025	0.00018	mg/L		09/01/20 16:04	09/10/20 02:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:04	09/10/20 02:12	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:04	09/10/20 02:12	1
Cobalt	**0.0050**		0.0025	0.00013	mg/L		09/01/20 16:04	09/10/20 02:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:04	09/10/20 02:12	1
Lithium	**0.012**		0.0050	0.0034	mg/L		09/01/20 16:04	09/10/20 02:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:04	09/10/20 02:12	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:04	09/10/20 02:12	1
Thallium	**0.00022**	**J**	0.0010	0.00015	mg/L		09/01/20 16:04	09/10/20 02:12	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.77**				SU			08/20/20 11:45	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARAMW-6

Date Collected: 08/21/20 09:45
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.051**	**J**	0.10	0.026	mg/L			08/28/20 15:07	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:08	09/04/20 22:07	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:08	09/04/20 22:07	1
Barium	**0.049**		0.010	0.0016	mg/L		09/01/20 16:08	09/04/20 22:07	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:08	09/04/20 22:07	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:08	09/04/20 22:07	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:08	09/04/20 22:07	1
Cobalt	**0.0018**	**J**	0.0025	0.00013	mg/L		09/01/20 16:08	09/04/20 22:07	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:08	09/04/20 22:07	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:08	09/04/20 22:07	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:08	09/04/20 22:07	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:08	09/04/20 22:07	1
Thallium	**0.00018**	**J**	0.0010	0.00015	mg/L		09/01/20 16:08	09/04/20 22:07	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/05/20 06:15	09/07/20 08:48	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.32**				SU			08/21/20 09:45	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-1

Client Sample ID: ARGWC-21

Date Collected: 08/21/20 10:36
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.084**	**J**	0.10	0.026	mg/L			08/28/20 15:21	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:08	09/04/20 22:10	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:08	09/04/20 22:10	1
Barium	**0.054**		0.010	0.0016	mg/L		09/01/20 16:08	09/04/20 22:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:08	09/04/20 22:10	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:08	09/04/20 22:10	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:08	09/04/20 22:10	1
Cobalt	**0.00066**	**J**	0.0025	0.00013	mg/L		09/01/20 16:08	09/04/20 22:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:08	09/04/20 22:10	1
Lithium	**0.013**		0.0050	0.0034	mg/L		09/01/20 16:08	09/04/20 22:10	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:08	09/04/20 22:10	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:08	09/04/20 22:10	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:08	09/04/20 22:10	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/05/20 06:15	09/07/20 08:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.89**				SU			08/21/20 10:36	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-326478/18
Matrix: Water
Analysis Batch: 326478

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/21/20 11:35	1

Lab Sample ID: LCS 180-326478/17
Matrix: Water
Analysis Batch: 326478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.73		mg/L		109	90 - 110

Lab Sample ID: 180-109846-2 MS
Matrix: Water
Analysis Batch: 326478

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.081	J F1	2.50	2.22	F1	mg/L		85	90 - 110

Lab Sample ID: 180-109846-2 MSD
Matrix: Water
Analysis Batch: 326478

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.081	J F1	2.50	2.21	F1	mg/L		85	90 - 110	1	20

Lab Sample ID: MB 180-326777/6
Matrix: Water
Analysis Batch: 326777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			08/24/20 06:29	1
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 06:29	1
Sulfate	<0.38		1.0	0.38	mg/L			08/24/20 06:29	1

Lab Sample ID: LCS 180-326777/5
Matrix: Water
Analysis Batch: 326777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.8		mg/L		108	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Sulfate	50.0	52.7		mg/L		105	90 - 110

Lab Sample ID: MB 180-326785/6
Matrix: Water
Analysis Batch: 326785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/24/20 08:17	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 180-326785/5
Matrix: Water
Analysis Batch: 326785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.38		mg/L		95	90 - 110

Lab Sample ID: MB 180-326890/6
Matrix: Water
Analysis Batch: 326890

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 05:13	1

Lab Sample ID: LCS 180-326890/5
Matrix: Water
Analysis Batch: 326890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.52		mg/L		101	90 - 110

Lab Sample ID: 180-109847-4 MS
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.026		2.50	2.48		mg/L		99	90 - 110

Lab Sample ID: 180-109847-4 MSD
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.026		2.50	2.52		mg/L		101	90 - 110	1	20

Lab Sample ID: 180-109848-1 MS
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.026		2.50	2.48		mg/L		99	90 - 110

Lab Sample ID: 180-109848-1 MSD
Matrix: Water
Analysis Batch: 326890

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.026		2.50	2.41		mg/L		97	90 - 110	3	20

Lab Sample ID: MB 180-326917/18
Matrix: Water
Analysis Batch: 326917

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/25/20 10:20	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LCS 180-326917/17
Matrix: Water
Analysis Batch: 326917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			2.50	2.40		mg/L		96	90 - 110		

Lab Sample ID: 180-109847-2 MS
Matrix: Water
Analysis Batch: 326917

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.041	J	2.50	2.52		mg/L		99	90 - 110		

Lab Sample ID: 180-109847-2 MSD
Matrix: Water
Analysis Batch: 326917

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.041	J	2.50	2.52		mg/L		99	90 - 110	0	20

Lab Sample ID: MB 180-327077/6
Matrix: Water
Analysis Batch: 327077

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/26/20 05:39	1

Lab Sample ID: LCS 180-327077/5
Matrix: Water
Analysis Batch: 327077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			2.50	2.55		mg/L		102	90 - 110		

Lab Sample ID: 180-109929-1 MS
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARGWC-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.054	J	2.50	2.62		mg/L		102	90 - 110		

Lab Sample ID: 180-109929-1 MSD
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARGWC-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.054	J	2.50	2.48		mg/L		97	90 - 110	5	20

Lab Sample ID: 180-109930-2 MS
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARAMW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	<0.026		2.50	2.42		mg/L		97	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: 180-109930-2 MSD
Matrix: Water
Analysis Batch: 327077

Client Sample ID: ARAMW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.026		2.50	2.47		mg/L		99	90 - 110	2	20

Lab Sample ID: MB 180-327578/6
Matrix: Water
Analysis Batch: 327578

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.026		0.10	0.026	mg/L			08/28/20 13:11	1

Lab Sample ID: LCS 180-327578/5
Matrix: Water
Analysis Batch: 327578

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			2.50	2.43		mg/L		97	90 - 110		

Lab Sample ID: 180-109970-2 MS
Matrix: Water
Analysis Batch: 327578

Client Sample ID: ARGWC-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.084	J	2.50	2.55		mg/L		99	90 - 110		

Lab Sample ID: 180-109970-2 MSD
Matrix: Water
Analysis Batch: 327578

Client Sample ID: ARGWC-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.084	J	2.50	2.75		mg/L		107	90 - 110	7	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-327640/1-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:02	09/17/20 20:39	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:02	09/17/20 20:39	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:02	09/17/20 20:39	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:02	09/17/20 20:39	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:02	09/17/20 20:39	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:02	09/17/20 20:39	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:02	09/17/20 20:39	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:02	09/17/20 20:39	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:02	09/17/20 20:39	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:02	09/17/20 20:39	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:02	09/17/20 20:39	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:02	09/17/20 20:39	1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-327640/2-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			0.250	0.262		mg/L		105	80 - 120		
Arsenic			1.00	1.05		mg/L		105	80 - 120		
Barium			1.00	1.05		mg/L		105	80 - 120		
Beryllium			0.500	0.525		mg/L		105	80 - 120		
Cadmium			0.500	0.525		mg/L		105	80 - 120		
Chromium			0.500	0.521		mg/L		104	80 - 120		
Cobalt			0.500	0.520		mg/L		104	80 - 120		
Lead			0.500	0.526		mg/L		105	80 - 120		
Lithium			0.500	0.497		mg/L		99	80 - 120		
Molybdenum			0.500	0.540		mg/L		108	80 - 120		
Selenium			1.00	1.01		mg/L		101	80 - 120		
Thallium			1.00	1.13		mg/L		113	80 - 120		

Lab Sample ID: 180-109846-2 MS
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWC-15
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	<0.00038		0.250	0.262		mg/L		105	75 - 125		
Arsenic	<0.00031		1.00	1.06		mg/L		106	75 - 125		
Barium	0.028		1.00	1.08		mg/L		106	75 - 125		
Beryllium	<0.00018		0.500	0.523		mg/L		105	75 - 125		
Cadmium	<0.00022		0.500	0.522		mg/L		104	75 - 125		
Chromium	<0.0015		0.500	0.523		mg/L		105	75 - 125		
Cobalt	0.00040	J	0.500	0.516		mg/L		103	75 - 125		
Lead	<0.00013		0.500	0.529		mg/L		106	75 - 125		
Lithium	<0.0034		0.500	0.513		mg/L		103	75 - 125		
Molybdenum	0.0016	J	0.500	0.544		mg/L		109	75 - 125		
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125		
Thallium	<0.00015		1.00	1.14		mg/L		114	75 - 125		

Lab Sample ID: 180-109846-2 MSD
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWC-15
Prep Type: Total Recoverable
Prep Batch: 327640

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.00038		0.250	0.268		mg/L		107	75 - 125	3	20
Arsenic	<0.00031		1.00	1.06		mg/L		106	75 - 125	1	20
Barium	0.028		1.00	1.09		mg/L		106	75 - 125	1	20
Beryllium	<0.00018		0.500	0.510		mg/L		102	75 - 125	3	20
Cadmium	<0.00022		0.500	0.530		mg/L		106	75 - 125	2	20
Chromium	<0.0015		0.500	0.518		mg/L		104	75 - 125	1	20
Cobalt	0.00040	J	0.500	0.522		mg/L		104	75 - 125	1	20
Lead	<0.00013		0.500	0.530		mg/L		106	75 - 125	0	20
Lithium	<0.0034		0.500	0.496		mg/L		99	75 - 125	3	20
Molybdenum	0.0016	J	0.500	0.547		mg/L		109	75 - 125	0	20
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125	0	20
Thallium	<0.00015		1.00	1.14		mg/L		114	75 - 125	1	20

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-327642/1-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		08/28/20 15:10	09/17/20 17:35	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		08/28/20 15:10	09/17/20 17:35	1
Barium	<0.0016		0.010	0.0016	mg/L		08/28/20 15:10	09/17/20 17:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		08/28/20 15:10	09/17/20 17:35	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		08/28/20 15:10	09/17/20 17:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		08/28/20 15:10	09/17/20 17:35	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		08/28/20 15:10	09/17/20 17:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		08/28/20 15:10	09/17/20 17:35	1
Lithium	<0.0034		0.0050	0.0034	mg/L		08/28/20 15:10	09/17/20 17:35	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		08/28/20 15:10	09/17/20 17:35	1
Selenium	<0.0015		0.0050	0.0015	mg/L		08/28/20 15:10	09/17/20 17:35	1
Thallium	<0.00015		0.0010	0.00015	mg/L		08/28/20 15:10	09/17/20 17:35	1

Lab Sample ID: MB 180-327642/1-A
Matrix: Water
Analysis Batch: 330464

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		08/28/20 15:10	09/18/20 12:56	1

Lab Sample ID: LCS 180-327642/2-A
Matrix: Water
Analysis Batch: 330300

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.259		mg/L		103	80 - 120
Arsenic	1.00	1.07		mg/L		107	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120
Beryllium	0.500	0.523		mg/L		105	80 - 120
Cadmium	0.500	0.522		mg/L		104	80 - 120
Chromium	0.500	0.522		mg/L		104	80 - 120
Cobalt	0.500	0.520		mg/L		104	80 - 120
Lead	0.500	0.527		mg/L		105	80 - 120
Lithium	0.500	0.499		mg/L		100	80 - 120
Molybdenum	0.500	0.545		mg/L		109	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Thallium	1.00	1.13		mg/L		113	80 - 120

Lab Sample ID: LCS 180-327642/2-A
Matrix: Water
Analysis Batch: 330464

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.19		mg/L		95	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-109850-1 MS
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWA-5
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.00038		0.250	0.260		mg/L		104	75 - 125
Arsenic	<0.00031		1.00	1.08		mg/L		108	75 - 125
Barium	0.031		1.00	1.08		mg/L		105	75 - 125
Beryllium	<0.00018		0.500	0.516		mg/L		103	75 - 125
Cadmium	<0.00022		0.500	0.526		mg/L		105	75 - 125
Chromium	<0.0015		0.500	0.533		mg/L		107	75 - 125
Cobalt	<0.00013		0.500	0.531		mg/L		106	75 - 125
Lead	0.00013	J	0.500	0.535		mg/L		107	75 - 125
Lithium	<0.0034		0.500	0.501		mg/L		100	75 - 125
Molybdenum	<0.00061		0.500	0.558		mg/L		112	75 - 125
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125
Thallium	0.00021	J	1.00	1.16		mg/L		116	75 - 125

Lab Sample ID: 180-109850-1 MSD
Matrix: Water
Analysis Batch: 330300

Client Sample ID: ARGWA-5
Prep Type: Total Recoverable
Prep Batch: 327642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.00038		0.250	0.262		mg/L		105	75 - 125	1	20
Arsenic	<0.00031		1.00	1.06		mg/L		106	75 - 125	2	20
Barium	0.031		1.00	1.08		mg/L		105	75 - 125	0	20
Beryllium	<0.00018		0.500	0.511		mg/L		102	75 - 125	1	20
Cadmium	<0.00022		0.500	0.522		mg/L		104	75 - 125	1	20
Chromium	<0.0015		0.500	0.524		mg/L		105	75 - 125	2	20
Cobalt	<0.00013		0.500	0.524		mg/L		105	75 - 125	1	20
Lead	0.00013	J	0.500	0.527		mg/L		105	75 - 125	2	20
Lithium	<0.0034		0.500	0.495		mg/L		99	75 - 125	1	20
Molybdenum	<0.00061		0.500	0.544		mg/L		109	75 - 125	3	20
Selenium	<0.0015		1.00	1.00		mg/L		100	75 - 125	1	20
Thallium	0.00021	J	1.00	1.11		mg/L		111	75 - 125	4	20

Lab Sample ID: MB 180-328062/1-A
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 00:30	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 00:30	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 00:30	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 00:30	1
Boron	<0.039	^	0.080	0.039	mg/L		09/01/20 16:00	09/10/20 00:30	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 00:30	1
Calcium	<0.13		0.50	0.13	mg/L		09/01/20 16:00	09/10/20 00:30	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 00:30	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 00:30	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 00:30	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 00:30	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 00:30	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 00:30	1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-328062/1-A
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 00:30	1

Lab Sample ID: MB 180-328062/1-A
Matrix: Water
Analysis Batch: 329474

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		09/01/20 16:00	09/11/20 22:27	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/11/20 22:27	1

Lab Sample ID: PB 180-326831/1-E
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	PB Result	PB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:00	09/10/20 00:37	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:00	09/10/20 00:37	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:00	09/10/20 00:37	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:00	09/10/20 00:37	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:00	09/10/20 00:37	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:00	09/10/20 00:37	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:00	09/10/20 00:37	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:00	09/10/20 00:37	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:00	09/10/20 00:37	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:00	09/10/20 00:37	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:00	09/10/20 00:37	1
Thallium	0.000185	J	0.0010	0.00015	mg/L		09/01/20 16:00	09/10/20 00:37	1

Lab Sample ID: LCS 180-328062/2-A
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.249		mg/L		100	80 - 120
Arsenic	1.00	0.945		mg/L		95	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120
Beryllium	0.500	0.525		mg/L		105	80 - 120
Cadmium	0.500	0.483		mg/L		97	80 - 120
Chromium	0.500	0.478		mg/L		96	80 - 120
Cobalt	0.500	0.477		mg/L		95	80 - 120
Lead	0.500	0.486		mg/L		97	80 - 120
Lithium	0.500	0.484		mg/L		97	80 - 120
Molybdenum	0.500	0.498		mg/L		100	80 - 120
Selenium	1.00	0.986		mg/L		99	80 - 120
Thallium	1.00	0.987		mg/L		99	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-328062/2-A
Matrix: Water
Analysis Batch: 329571

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron			1.25	1.32		mg/L		105	80 - 120		

Lab Sample ID: 180-109930-2 MS
Matrix: Water
Analysis Batch: 329135

Client Sample ID: ARAMW-3
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	<0.00038		0.250	0.255		mg/L		102	75 - 125		
Arsenic	<0.00031		1.00	0.981		mg/L		98	75 - 125		
Barium	0.093		1.00	1.16		mg/L		106	75 - 125		
Beryllium	<0.00018	^	0.500	0.548	^	mg/L		110	75 - 125		
Cadmium	<0.00022		0.500	0.492		mg/L		98	75 - 125		
Chromium	<0.0015		0.500	0.489		mg/L		98	75 - 125		
Cobalt	0.00056	J	0.500	0.486		mg/L		97	75 - 125		
Lead	<0.00013		0.500	0.495		mg/L		99	75 - 125		
Lithium	<0.0034		0.500	0.505		mg/L		101	75 - 125		
Molybdenum	0.0029	J	0.500	0.513		mg/L		102	75 - 125		
Selenium	<0.0015		1.00	0.983		mg/L		98	75 - 125		
Thallium	<0.00015		1.00	1.00		mg/L		100	75 - 125		

Lab Sample ID: 180-109930-2 MSD
Matrix: Water
Analysis Batch: 329135

Client Sample ID: ARAMW-3
Prep Type: Total Recoverable
Prep Batch: 328062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.00038		0.250	0.251		mg/L		101	75 - 125	2	20
Arsenic	<0.00031		1.00	0.983		mg/L		98	75 - 125	0	20
Barium	0.093		1.00	1.14		mg/L		105	75 - 125	1	20
Beryllium	<0.00018	^	0.500	0.543	^	mg/L		109	75 - 125	1	20
Cadmium	<0.00022		0.500	0.486		mg/L		97	75 - 125	1	20
Chromium	<0.0015		0.500	0.485		mg/L		97	75 - 125	1	20
Cobalt	0.00056	J	0.500	0.483		mg/L		97	75 - 125	1	20
Lead	<0.00013		0.500	0.491		mg/L		98	75 - 125	1	20
Lithium	<0.0034		0.500	0.496		mg/L		99	75 - 125	2	20
Molybdenum	0.0029	J	0.500	0.505		mg/L		100	75 - 125	2	20
Selenium	<0.0015		1.00	0.985		mg/L		98	75 - 125	0	20
Thallium	<0.00015		1.00	0.998		mg/L		100	75 - 125	0	20

Lab Sample ID: MB 180-328065/1-A
Matrix: Water
Analysis Batch: 328773

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328065

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		09/01/20 16:08	09/04/20 21:35	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		09/01/20 16:08	09/04/20 21:35	1
Barium	<0.0016		0.010	0.0016	mg/L		09/01/20 16:08	09/04/20 21:35	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		09/01/20 16:08	09/04/20 21:35	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		09/01/20 16:08	09/04/20 21:35	1
Chromium	<0.0015		0.0020	0.0015	mg/L		09/01/20 16:08	09/04/20 21:35	1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-328065/1-A
Matrix: Water
Analysis Batch: 328773

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 328065

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00013		0.0025	0.00013	mg/L		09/01/20 16:08	09/04/20 21:35	1
Lead	<0.00013		0.0010	0.00013	mg/L		09/01/20 16:08	09/04/20 21:35	1
Lithium	<0.0034		0.0050	0.0034	mg/L		09/01/20 16:08	09/04/20 21:35	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		09/01/20 16:08	09/04/20 21:35	1
Selenium	<0.0015		0.0050	0.0015	mg/L		09/01/20 16:08	09/04/20 21:35	1
Thallium	<0.00015		0.0010	0.00015	mg/L		09/01/20 16:08	09/04/20 21:35	1

Lab Sample ID: LCS 180-328065/2-A
Matrix: Water
Analysis Batch: 328773

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 328065

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.261		mg/L		105	80 - 120
Arsenic	1.00	1.04		mg/L		104	80 - 120
Barium	1.00	1.08		mg/L		108	80 - 120
Beryllium	0.500	0.479		mg/L		96	80 - 120
Cadmium	0.500	0.514		mg/L		103	80 - 120
Chromium	0.500	0.498		mg/L		100	80 - 120
Cobalt	0.500	0.510		mg/L		102	80 - 120
Lead	0.500	0.510		mg/L		102	80 - 120
Lithium	0.500	0.483		mg/L		97	80 - 120
Molybdenum	0.500	0.522		mg/L		104	80 - 120
Selenium	1.00	0.995		mg/L		100	80 - 120
Thallium	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: LCS 180-326831/2-E
Matrix: Water
Analysis Batch: 329135

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 328062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.255		mg/L		102	80 - 120
Arsenic	1.00	0.960		mg/L		96	80 - 120
Barium	1.00	1.05		mg/L		105	80 - 120
Beryllium	0.500	0.518		mg/L		104	80 - 120
Boron	1.25	1.08	^	mg/L		87	80 - 120
Cadmium	0.500	0.482		mg/L		96	80 - 120
Calcium	25.0	26.6		mg/L		107	80 - 120
Chromium	0.500	0.492		mg/L		98	80 - 120
Cobalt	0.500	0.477		mg/L		95	80 - 120
Lead	0.500	0.491		mg/L		98	80 - 120
Lithium	0.500	0.480		mg/L		96	80 - 120
Molybdenum	0.500	0.494		mg/L		99	80 - 120
Selenium	1.00	0.977		mg/L		98	80 - 120
Thallium	1.00	0.980		mg/L		98	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-328121/1-A
Matrix: Water
Analysis Batch: 328261

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013	^	0.00020	0.00013	mg/L		09/02/20 05:45	09/02/20 15:07	1

Lab Sample ID: LCS 180-328121/2-A
Matrix: Water
Analysis Batch: 328261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00297	^	mg/L		119	80 - 120

Lab Sample ID: 180-109846-1 MS
Matrix: Water
Analysis Batch: 328261

Client Sample ID: ARGWA-14
Prep Type: Total/NA
Prep Batch: 328121

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00013	^	0.00100	0.00118	^	mg/L		118	75 - 125

Lab Sample ID: 180-109846-1 MSD
Matrix: Water
Analysis Batch: 328261

Client Sample ID: ARGWA-14
Prep Type: Total/NA
Prep Batch: 328121

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00013	^	0.00100	0.00120	^	mg/L		120	75 - 125	2	20

Lab Sample ID: MB 180-328515/1-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:24	1

Lab Sample ID: LCS 180-328515/2-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00253		mg/L		101	80 - 120

Lab Sample ID: MB 180-328516/1-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 09:51	1

Lab Sample ID: LCS 180-328516/2-A
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00255		mg/L		102	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-328636/1-A
Matrix: Water
Analysis Batch: 328684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 328636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/05/20 06:15	09/07/20 08:30	1

Lab Sample ID: LCS 180-328636/2-A
Matrix: Water
Analysis Batch: 328684

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 328636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00263		mg/L		105	80 - 120

Lab Sample ID: PB 180-326831/1-F
Matrix: Water
Analysis Batch: 328649

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 328516

Analyte	PB Result	PB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		09/04/20 08:35	09/05/20 10:02	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-326608/2
Matrix: Water
Analysis Batch: 326608

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/21/20 11:11	1

Lab Sample ID: LCS 180-326608/1
Matrix: Water
Analysis Batch: 326608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	567	602		mg/L		106	80 - 120

Lab Sample ID: MB 180-326682/2
Matrix: Water
Analysis Batch: 326682

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			08/22/20 08:11	1

Lab Sample ID: LCS 180-326682/1
Matrix: Water
Analysis Batch: 326682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	567	562		mg/L		99	80 - 120

HPLC/IC

Analysis Batch: 326478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-2	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326478/18	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326478/17	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109846-2 MS	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-109846-2 MSD	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	EPA 300.0 R2.1	
180-109918-2	ARGWC-23	Total/NA	Water	EPA 300.0 R2.1	
180-109918-3	DUP-2	Total/NA	Water	EPA 300.0 R2.1	
180-109918-5	ARAMW-2	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326777/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326777/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-109846-3	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-109918-4	ARAMW-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326785/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326785/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109847-3	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-109847-4	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-109848-1	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-109848-2	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
180-109848-3	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-109850-1	ARGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-109850-2	ARGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-109850-3	ARGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-109851-1	EB#2	Total/NA	Water	EPA 300.0 R2.1	
180-109851-2	ARGWA-19	Total/NA	Water	EPA 300.0 R2.1	
180-109851-3	ARGWA-20	Total/NA	Water	EPA 300.0 R2.1	
180-109851-4	ARGWC-22	Total/NA	Water	EPA 300.0 R2.1	
180-109851-4	ARGWC-22	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326890/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326890/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109847-4 MS	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-109847-4 MSD	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-109848-1 MS	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-109848-1 MSD	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 326917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109847-1	FB#1	Total/NA	Water	EPA 300.0 R2.1	
180-109847-2	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	
MB 180-326917/18	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-326917/17	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC (Continued)

Analysis Batch: 326917 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109847-2 MS	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	
180-109847-2 MSD	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 327077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109929-1	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-109929-2	ARGWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-109930-1	EB#1	Total/NA	Water	EPA 300.0 R2.1	
180-109930-2	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
180-109930-3	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
MB 180-327077/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-327077/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109929-1 MS	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-109929-1 MSD	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-109930-2 MS	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
180-109930-2 MSD	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 327578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total/NA	Water	EPA 300.0 R2.1	
180-109970-2	ARGWC-21	Total/NA	Water	EPA 300.0 R2.1	
MB 180-327578/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-327578/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-109970-2 MS	ARGWC-21	Total/NA	Water	EPA 300.0 R2.1	
180-109970-2 MSD	ARGWC-21	Total/NA	Water	EPA 300.0 R2.1	

Metals

Filtration Batch: 326831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109929-2	ARGWC-18	Dissolved	Water	Filtration	
PB 180-326831/1-E	Method Blank	Total Recoverable	Water	Filtration	
PB 180-326831/1-F	Method Blank	Dissolved	Water	Filtration	
LCS 180-326831/2-E	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 327640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total Recoverable	Water	3005A	
180-109846-2	ARGWC-15	Total Recoverable	Water	3005A	
180-109846-3	ARGWC-16	Total Recoverable	Water	3005A	
180-109847-1	FB#1	Total Recoverable	Water	3005A	
180-109847-2	ARGWA-12	Total Recoverable	Water	3005A	
180-109847-3	ARGWA-13	Total Recoverable	Water	3005A	
180-109847-4	ARGWC-17	Total Recoverable	Water	3005A	
180-109848-1	ARGWC-10	Total Recoverable	Water	3005A	
180-109848-2	DUP-1	Total Recoverable	Water	3005A	
180-109848-3	ARGWC-9	Total Recoverable	Water	3005A	
MB 180-327640/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-327640/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-109846-2 MS	ARGWC-15	Total Recoverable	Water	3005A	
180-109846-2 MSD	ARGWC-15	Total Recoverable	Water	3005A	

Metals

Prep Batch: 327642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total Recoverable	Water	3005A	
180-109850-2	ARGWA-3	Total Recoverable	Water	3005A	
180-109850-3	ARGWC-7	Total Recoverable	Water	3005A	
180-109851-1	EB#2	Total Recoverable	Water	3005A	
180-109851-2	ARGWA-19	Total Recoverable	Water	3005A	
180-109851-3	ARGWA-20	Total Recoverable	Water	3005A	
180-109851-4	ARGWC-22	Total Recoverable	Water	3005A	
MB 180-327642/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-327642/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-109850-1 MS	ARGWA-5	Total Recoverable	Water	3005A	
180-109850-1 MSD	ARGWA-5	Total Recoverable	Water	3005A	

Prep Batch: 328062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total Recoverable	Water	3005A	
180-109918-2	ARGWC-23	Total Recoverable	Water	3005A	
180-109918-3	DUP-2	Total Recoverable	Water	3005A	
180-109918-4	ARAMW-1	Total Recoverable	Water	3005A	
180-109918-5	ARAMW-2	Total Recoverable	Water	3005A	
180-109929-1	ARGWC-8	Total Recoverable	Water	3005A	
180-109929-2	ARGWC-18	Dissolved	Water	3005A	326831
180-109929-2	ARGWC-18	Total Recoverable	Water	3005A	
180-109930-1	EB#1	Total Recoverable	Water	3005A	
180-109930-2	ARAMW-3	Total Recoverable	Water	3005A	
180-109930-3	ARAMW-4	Total Recoverable	Water	3005A	
MB 180-328062/1-A	Method Blank	Total Recoverable	Water	3005A	
PB 180-326831/1-E	Method Blank	Total Recoverable	Water	3005A	326831
LCS 180-326831/2-E	Lab Control Sample	Dissolved	Water	3005A	326831
LCS 180-328062/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-109930-2 MS	ARAMW-3	Total Recoverable	Water	3005A	
180-109930-2 MSD	ARAMW-3	Total Recoverable	Water	3005A	

Prep Batch: 328065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total Recoverable	Water	3005A	
180-109970-2	ARGWC-21	Total Recoverable	Water	3005A	
MB 180-328065/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-328065/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 328121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	7470A	
180-109846-2	ARGWC-15	Total/NA	Water	7470A	
180-109846-3	ARGWC-16	Total/NA	Water	7470A	
180-109847-1	FB#1	Total/NA	Water	7470A	
180-109847-2	ARGWA-12	Total/NA	Water	7470A	
180-109847-3	ARGWA-13	Total/NA	Water	7470A	
180-109847-4	ARGWC-17	Total/NA	Water	7470A	
180-109848-1	ARGWC-10	Total/NA	Water	7470A	
180-109848-2	DUP-1	Total/NA	Water	7470A	
180-109848-3	ARGWC-9	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 328121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total/NA	Water	7470A	
180-109850-2	ARGWA-3	Total/NA	Water	7470A	
180-109850-3	ARGWC-7	Total/NA	Water	7470A	
180-109851-1	EB#2	Total/NA	Water	7470A	
180-109851-2	ARGWA-19	Total/NA	Water	7470A	
180-109851-3	ARGWA-20	Total/NA	Water	7470A	
180-109851-4	ARGWC-22	Total/NA	Water	7470A	
MB 180-328121/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-328121/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-109846-1 MS	ARGWA-14	Total/NA	Water	7470A	
180-109846-1 MSD	ARGWA-14	Total/NA	Water	7470A	

Analysis Batch: 328261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	EPA 7470A	328121
180-109846-2	ARGWC-15	Total/NA	Water	EPA 7470A	328121
180-109846-3	ARGWC-16	Total/NA	Water	EPA 7470A	328121
180-109847-1	FB#1	Total/NA	Water	EPA 7470A	328121
180-109847-2	ARGWA-12	Total/NA	Water	EPA 7470A	328121
180-109847-3	ARGWA-13	Total/NA	Water	EPA 7470A	328121
180-109847-4	ARGWC-17	Total/NA	Water	EPA 7470A	328121
180-109848-1	ARGWC-10	Total/NA	Water	EPA 7470A	328121
180-109848-2	DUP-1	Total/NA	Water	EPA 7470A	328121
180-109848-3	ARGWC-9	Total/NA	Water	EPA 7470A	328121
180-109850-1	ARGWA-5	Total/NA	Water	EPA 7470A	328121
180-109850-2	ARGWA-3	Total/NA	Water	EPA 7470A	328121
180-109850-3	ARGWC-7	Total/NA	Water	EPA 7470A	328121
180-109851-1	EB#2	Total/NA	Water	EPA 7470A	328121
180-109851-2	ARGWA-19	Total/NA	Water	EPA 7470A	328121
180-109851-3	ARGWA-20	Total/NA	Water	EPA 7470A	328121
180-109851-4	ARGWC-22	Total/NA	Water	EPA 7470A	328121
MB 180-328121/1-A	Method Blank	Total/NA	Water	EPA 7470A	328121
LCS 180-328121/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328121
180-109846-1 MS	ARGWA-14	Total/NA	Water	EPA 7470A	328121
180-109846-1 MSD	ARGWA-14	Total/NA	Water	EPA 7470A	328121

Prep Batch: 328515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109930-3	ARAMW-4	Total/NA	Water	7470A	
MB 180-328515/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-328515/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 328516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	7470A	
180-109918-2	ARGWC-23	Total/NA	Water	7470A	
180-109918-3	DUP-2	Total/NA	Water	7470A	
180-109918-4	ARAMW-1	Total/NA	Water	7470A	
180-109918-5	ARAMW-2	Total/NA	Water	7470A	
180-109929-1	ARGWC-8	Total/NA	Water	7470A	
180-109929-2	ARGWC-18	Dissolved	Water	7470A	326831

Metals (Continued)

Prep Batch: 328516 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109929-2	ARGWC-18	Total/NA	Water	7470A	
180-109930-1	EB#1	Total/NA	Water	7470A	
180-109930-2	ARAMW-3	Total/NA	Water	7470A	
MB 180-328516/1-A	Method Blank	Total/NA	Water	7470A	
PB 180-326831/1-F	Method Blank	Dissolved	Water	7470A	326831
LCS 180-328516/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 328636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total/NA	Water	7470A	
180-109970-2	ARGWC-21	Total/NA	Water	7470A	
MB 180-328636/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-328636/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 328649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	EPA 7470A	328516
180-109918-2	ARGWC-23	Total/NA	Water	EPA 7470A	328516
180-109918-3	DUP-2	Total/NA	Water	EPA 7470A	328516
180-109918-4	ARAMW-1	Total/NA	Water	EPA 7470A	328516
180-109918-5	ARAMW-2	Total/NA	Water	EPA 7470A	328516
180-109929-1	ARGWC-8	Total/NA	Water	EPA 7470A	328516
180-109929-2	ARGWC-18	Dissolved	Water	EPA 7470A	328516
180-109929-2	ARGWC-18	Total/NA	Water	EPA 7470A	328516
180-109930-1	EB#1	Total/NA	Water	EPA 7470A	328516
180-109930-2	ARAMW-3	Total/NA	Water	EPA 7470A	328516
180-109930-3	ARAMW-4	Total/NA	Water	EPA 7470A	328515
MB 180-328515/1-A	Method Blank	Total/NA	Water	EPA 7470A	328515
MB 180-328516/1-A	Method Blank	Total/NA	Water	EPA 7470A	328516
PB 180-326831/1-F	Method Blank	Dissolved	Water	EPA 7470A	328516
LCS 180-328515/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328515
LCS 180-328516/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328516

Analysis Batch: 328684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total/NA	Water	EPA 7470A	328636
180-109970-2	ARGWC-21	Total/NA	Water	EPA 7470A	328636
MB 180-328636/1-A	Method Blank	Total/NA	Water	EPA 7470A	328636
LCS 180-328636/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	328636

Analysis Batch: 328773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109970-1	ARAMW-6	Total Recoverable	Water	EPA 6020B	328065
180-109970-2	ARGWC-21	Total Recoverable	Water	EPA 6020B	328065
MB 180-328065/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	328065
LCS 180-328065/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	328065

Analysis Batch: 329135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total Recoverable	Water	EPA 6020B	328062
180-109918-2	ARGWC-23	Total Recoverable	Water	EPA 6020B	328062

Metals (Continued)

Analysis Batch: 329135 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total Recoverable	Water	EPA 6020B	328062
180-109918-4	ARAMW-1	Total Recoverable	Water	EPA 6020B	328062
180-109918-5	ARAMW-2	Total Recoverable	Water	EPA 6020B	328062
180-109929-1	ARGWC-8	Total Recoverable	Water	EPA 6020B	328062
180-109929-2	ARGWC-18	Dissolved	Water	EPA 6020B	328062
180-109929-2	ARGWC-18	Total Recoverable	Water	EPA 6020B	328062
180-109930-1	EB#1	Total Recoverable	Water	EPA 6020B	328062
180-109930-2	ARAMW-3	Total Recoverable	Water	EPA 6020B	328062
180-109930-3	ARAMW-4	Total Recoverable	Water	EPA 6020B	328062
MB 180-328062/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	328062
PB 180-326831/1-E	Method Blank	Total Recoverable	Water	EPA 6020B	328062
LCS 180-326831/2-E	Lab Control Sample	Dissolved	Water	EPA 6020B	328062
LCS 180-328062/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	328062
180-109930-2 MS	ARAMW-3	Total Recoverable	Water	EPA 6020B	328062
180-109930-2 MSD	ARAMW-3	Total Recoverable	Water	EPA 6020B	328062

Analysis Batch: 329474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-2	ARGWC-23	Total Recoverable	Water	EPA 6020B	328062
MB 180-328062/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	328062

Analysis Batch: 329571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-328062/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	328062

Analysis Batch: 330300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total Recoverable	Water	EPA 6020B	327640
180-109846-2	ARGWC-15	Total Recoverable	Water	EPA 6020B	327640
180-109846-3	ARGWC-16	Total Recoverable	Water	EPA 6020B	327640
180-109847-1	FB#1	Total Recoverable	Water	EPA 6020B	327640
180-109847-2	ARGWA-12	Total Recoverable	Water	EPA 6020B	327640
180-109847-3	ARGWA-13	Total Recoverable	Water	EPA 6020B	327640
180-109847-4	ARGWC-17	Total Recoverable	Water	EPA 6020B	327640
180-109848-1	ARGWC-10	Total Recoverable	Water	EPA 6020B	327640
180-109848-2	DUP-1	Total Recoverable	Water	EPA 6020B	327640
180-109848-3	ARGWC-9	Total Recoverable	Water	EPA 6020B	327640
180-109850-1	ARGWA-5	Total Recoverable	Water	EPA 6020B	327642
180-109850-2	ARGWA-3	Total Recoverable	Water	EPA 6020B	327642
180-109850-3	ARGWC-7	Total Recoverable	Water	EPA 6020B	327642
180-109851-1	EB#2	Total Recoverable	Water	EPA 6020B	327642
180-109851-2	ARGWA-19	Total Recoverable	Water	EPA 6020B	327642
180-109851-3	ARGWA-20	Total Recoverable	Water	EPA 6020B	327642
180-109851-4	ARGWC-22	Total Recoverable	Water	EPA 6020B	327642
MB 180-327640/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	327640
MB 180-327642/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	327642
LCS 180-327640/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	327640
LCS 180-327642/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	327642
180-109846-2 MS	ARGWC-15	Total Recoverable	Water	EPA 6020B	327640
180-109846-2 MSD	ARGWC-15	Total Recoverable	Water	EPA 6020B	327640
180-109850-1 MS	ARGWA-5	Total Recoverable	Water	EPA 6020B	327642

Metals (Continued)

Analysis Batch: 330300 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1 MSD	ARGWA-5	Total Recoverable	Water	EPA 6020B	327642

Analysis Batch: 330464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109851-4	ARGWC-22	Total Recoverable	Water	EPA 6020B	327642
MB 180-327642/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	327642
LCS 180-327642/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	327642

Analysis Batch: 330720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total Recoverable	Water	EPA 6020B	328062

General Chemistry

Analysis Batch: 326608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109851-1	EB#2	Total/NA	Water	SM 2540C	
180-109851-4	ARGWC-22	Total/NA	Water	SM 2540C	
MB 180-326608/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-326608/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 326682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	SM 2540C	
180-109918-2	ARGWC-23	Total/NA	Water	SM 2540C	
180-109918-3	DUP-2	Total/NA	Water	SM 2540C	
MB 180-326682/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-326682/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 326626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	Field Sampling	
180-109846-2	ARGWC-15	Total/NA	Water	Field Sampling	
180-109846-3	ARGWC-16	Total/NA	Water	Field Sampling	
180-109847-2	ARGWA-12	Total/NA	Water	Field Sampling	
180-109847-3	ARGWA-13	Total/NA	Water	Field Sampling	
180-109847-4	ARGWC-17	Total/NA	Water	Field Sampling	
180-109848-1	ARGWC-10	Total/NA	Water	Field Sampling	
180-109848-2	DUP-1	Total/NA	Water	Field Sampling	
180-109848-3	ARGWC-9	Total/NA	Water	Field Sampling	
180-109850-1	ARGWA-5	Total/NA	Water	Field Sampling	
180-109850-2	ARGWA-3	Total/NA	Water	Field Sampling	
180-109850-3	ARGWC-7	Total/NA	Water	Field Sampling	
180-109851-2	ARGWA-19	Total/NA	Water	Field Sampling	
180-109851-3	ARGWA-20	Total/NA	Water	Field Sampling	
180-109851-4	ARGWC-22	Total/NA	Water	Field Sampling	

Analysis Batch: 327279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-2	ARGWC-23	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 327279 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total/NA	Water	Field Sampling	
180-109918-4	ARAMW-1	Total/NA	Water	Field Sampling	
180-109918-5	ARAMW-2	Total/NA	Water	Field Sampling	
180-109929-1	ARGWC-8	Total/NA	Water	Field Sampling	
180-109929-2	ARGWC-18	Total/NA	Water	Field Sampling	
180-109930-2	ARAMW-3	Total/NA	Water	Field Sampling	
180-109930-3	ARAMW-4	Total/NA	Water	Field Sampling	
180-109970-1	ARAMW-6	Total/NA	Water	Field Sampling	
180-109970-2	ARGWC-21	Total/NA	Water	Field Sampling	

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Pittsburgh, PA 15238
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Chain of Custody Record

244- ATLANTA

Client Information	Sampler: D Howard, E Gwilke, A Shredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power			Analysis Requested	Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			Other:
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals(6020) + Hg(7470A)	Ra 226/228 (9315/9320)	Fluoride(300)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H		
ARGWA-14	8/19/20	1355	G	W			X	X	X	3	pH = 6.62
ARGWC-15	↓	1005	G	W			X	X	X	3	pH = 6.47
ARGWC-16	↓	1205	G	W			X	X	X	3	pH = 5.24

180-109846 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
David K Howard	8/19/20 / 1815		Dallas Waters	8-20-20 9:30	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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Pittsburgh, PA 15238
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Chain of Custody Record

244- ATLANTA

Client Information	Sampler: D Howard, E Gulka, A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 1
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals 6020B + Hg 7470A	Fluoride 300_ORGFM_28D	Radium 226/228 (9315/9320)	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	H	D		
FB#1	8/18/20	1100	G	W			1	1	1	3	
ARGWA-12		1300	G	W			1	1	1	3	pH = 6.48
ARGWA-13		1450	G	W			1	1	1	3	pH = 6.15
ARGWC-17		1445	G	W			1	1	1	3	pH = 5.07

180-109847 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For: Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Daniel L Howard	8/18/20 / 1730	Wood E&IS	Donna Watts	8-20-20 930	Eurofins
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward, EGilker, AShoreli	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			Other:
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals (6020) + Hg (7470A)	Radium 226/228 (9315/9320)	Fluoride (300.)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	D	H	X	
~~DUP AGGW~~ ARGWC-10	8/19/20	1135	G	W			X	X	X	3	pH = 7.06
DUP-1	↓	—	G	W			X	X	X	3	pH = 7.06
ARGWC-9		1425	G	W			X	X	X	3	pH = 7.21

180-109848 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: David L Howard	Date/Time: 8/19/20/1815	Company	Received by: Pace Water	Date/Time: 8-20-20	Company: FEDEX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:30	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver. 01/16/2019

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Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward, EGwillen, AShoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 1
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals(6020B)+Hg 7470A	Fluoride 300.0_ORGFM_28D	Radium 226/228(9315/9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
ARGWA-5	8/18/20	1135	G	W			1	1	1	3	pH = 6.18
ARGWA-3	↓	1320	G	W			1	1	1	3	pH = 6.47
ARGWC-7		1525	G	W			1	1	1	3	pH = 6.70

180-109850 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Danell Howard	8/18/20 1730	Wood E&IS	[signature]	8-20-20	ETAPH
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				9:30	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: D Howard, EGwilkes, A Sheredity	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power			Analysis Requested	Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals (6020) + Hg (7470A)	Radium 226/228 (9315/9320)	Fluoride (300)	Fluoride, Chloride, Sulfate 300.0	TDS 2540C	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H	H	H		
EB#2	8/19/20	0915	G	W			X	X		X	X	3	
ARGWA-19		1056	G	W			X	X	X			3	pH = 6.25
ARGWA-20		1344	G	W			X	X	X			3	pH = 6.16
ARGWC-22	↓	1532	G	W			X	X		X	X	3	pH = 6.21

180-109851 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For: ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel K Howard	8/19/20 / 1815			8-20-20 7:30	EHPW
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: [ ] Yes [ ] No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals (6020B)+Hg (7470A)	Radium 226/228 (9315/9320)	Chloride, sulfate, Fluoride (300)	TDS 2540C	Fluoride (300)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H	H	H		
FB#2	8/20/20	1045	G	W			X	X	X	X		3	
ARGWC-23		1215	G	W			X	X	X	X		3	pH = 6.33
DUP-2		--	G	W			X	X	X	X		3	pH = 6.33
ARAMW-1		1436	G	W			X	X			X	3	pH = 6.09
ARAMW-2		1635	G	W			X	X			X	3	pH = 5.99

180-109918 Chain of Custody

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
David L Howard	8/20/20 1840	Wood	Dellie Watson	8-21-20	~~EA~~
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				7:45	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins

244- ATLANTA

Client Information	Sampler: Ever Guillen, A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power		Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			Other:
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
			Preservation Code:					
ARGWC-8	8/20/20	1035	G	W			3	pH = 6.34
ARGWC-18	8/20/20	1705	G	W	Y		4	pH = 6.43

Analysis Requested (Preservation Code: D / D / H / D):
- Appendix III metals + Hg (6020B/7470A) Tot
- Radium 226/228 (9315/9320)
- Fluoride (300)
- Appendix III metals + Hg (6020B/7470A) Diss

180-109929 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel K Howard	8/20/20 1840	Wood	Allene Watson	8-21-20 945	ETA
Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: Evers Guillen, Andrew Sheridan	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			Other:
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals + Hg (6020B/7470A)	Radium 226/228 (9315/9320)	Fluoride (300)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H		
EB#1	8/20/20	0930	G	W			X	X	X		
ARAMW-3		1445	G	W			X	X	X		pH = 6.24
ARAMW-4		1145	G	W			X	X	X		pH = 5.77

180-109930 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
David L Howard	8/20/20 / 1840	Wood		8-21-20	ETAPT
Relinquished by	Date/Time	Company	Received by	Date/Time 945	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver. 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward, AShoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 1
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Oil, etc.) (BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals + Hg (6020B/7470A)	Radium 226/228 (9315/9320)	Fluoride (300)	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	D	H		
ARAMW-6	8/21/20	0945	G	W			X	X	X	3	pH=6.32
ARGWC-21	↓	1036	G	W			X	X	X	3	pH=5.89

180-109970 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

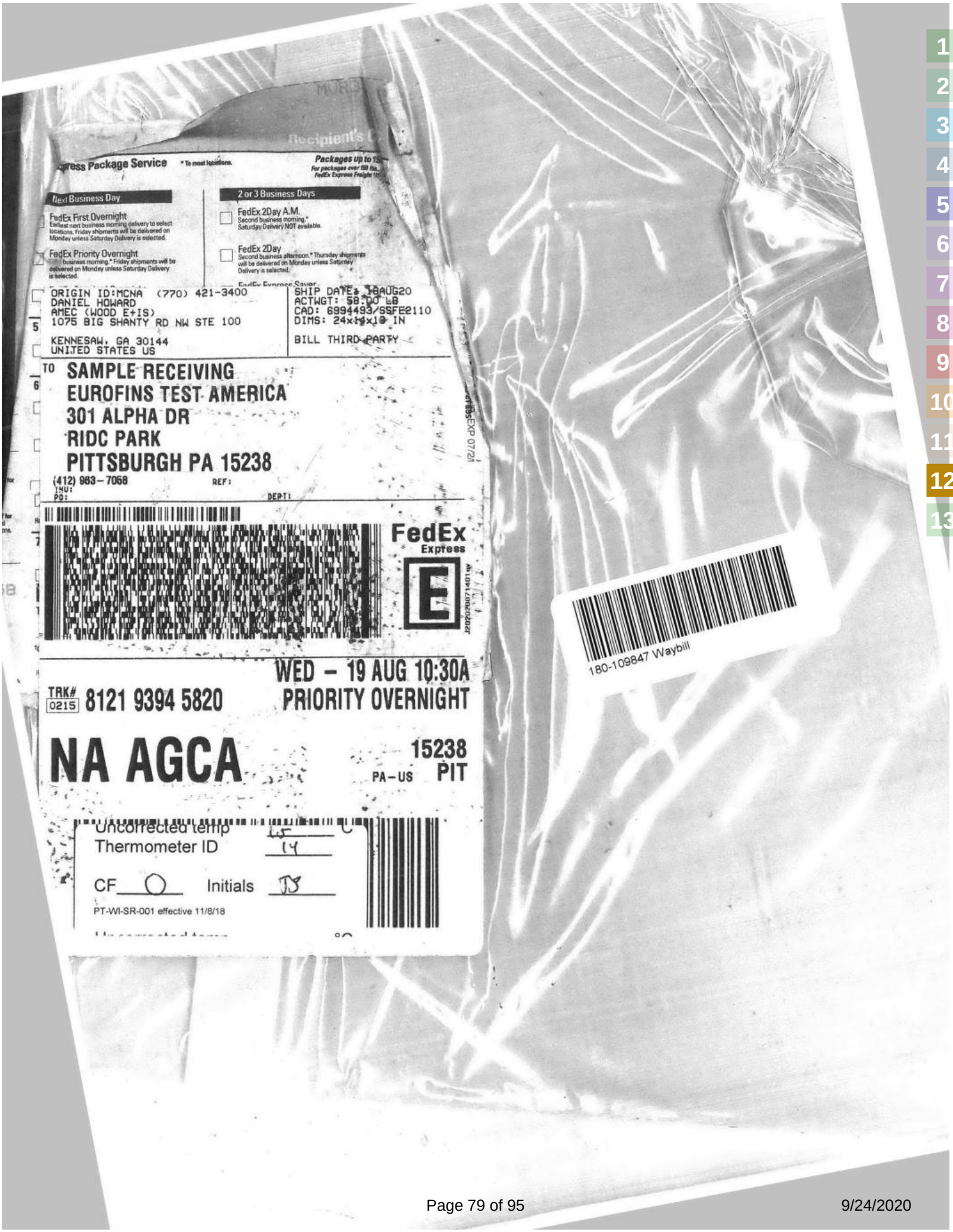
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Daniel L Howard	8/21/20 1315				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019


Recipient's Copy
Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
ORIGIN ID:MCNA (770) 421-3
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE
KENNESAW, GA 30144
UNITED STATES US
SAMPLE RECIEVIN
EUROFINS TEST A
301 ALPHA DR
PITTSBURGH PA
(412) 968-7868
Hold Weekday
Hold Saturday
Uncorrected Temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18
180-109846 Waybill


Express Package Service
* To most locations.
Packages up to 1
For packages over 150 lbs.
FedEx Express Freight
Next Business Day
FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
FedEx Priority Overnight
business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
2 or 3 Business Days
FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.
FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
FedEx Express Saver
ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 18AUG20
ACTWGT: 58.00 LB
CAD: 6994493/SSFE2110
DIMS: 24x14x10 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 983-7068
REF:
INV:
PO:
DEPT:
FedEx
Express
WED - 19 AUG 10:30A
TRK# 0215 8121 9394 5820
PRIORITY OVERNIGHT
NA AGCA
15238
PA-US PIT
Uncorrected temp 4.5 C
Thermometer ID 14
CF 0 Initials JS
PT-WI-SR-001 effective 11/8/18
180-109847 Waybill

Form ID No. 0215

Express Package Service *To most locations.

Packages up to 150 lbs.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 19AUG20
ACTWGT: 56.65 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

FedEx Express

A
5360
08.20

THU - 20 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 0215 8121 9394 5360

DSR
15238
PIT

NA AGCA

PA-US

Uncorrected temp: 14 C
Thermometer ID 14
CF 0 Initials B

PT-WI-SR-001 effective 11/8/18

05884

Part # 156293-[illegible] REV 07/21


ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 18AUG20
ACTWGT: 42.15 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068 REF:
INV:
PO: DEPT:

Part # 156285-XXX-XXXX EXP 07/21

FedEx Express

J202020071401 1/1

TRK# 0215 8121 9394 5830

WED - 19 AUG 10:30A
PRIORITY OVERNIGHT

AHS
15238
PA-US PIT

NA AGCA

Uncorrected temp ~~2+~~ C
Thermometer ID 14
CF 0 Initials JS
PT-WI-SR-001 effective 11/8/18

180-109850 Waybill

Align Open End of FedEx Pouch Here

Fe
FT 97
FZ
1
10:30 A
5841
08.20

180-109851 Waybill

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 19AUG20
ACTWGT: 57.45 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN

BILL THIRD PARTY

Part # 156278-XXX-XXP 07/21

TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0215 8121 9394 5841

THU - 20 AUG 10:30A
PRIORITY OVERNIGHT

DSR
15238
PIT

NA AGCA

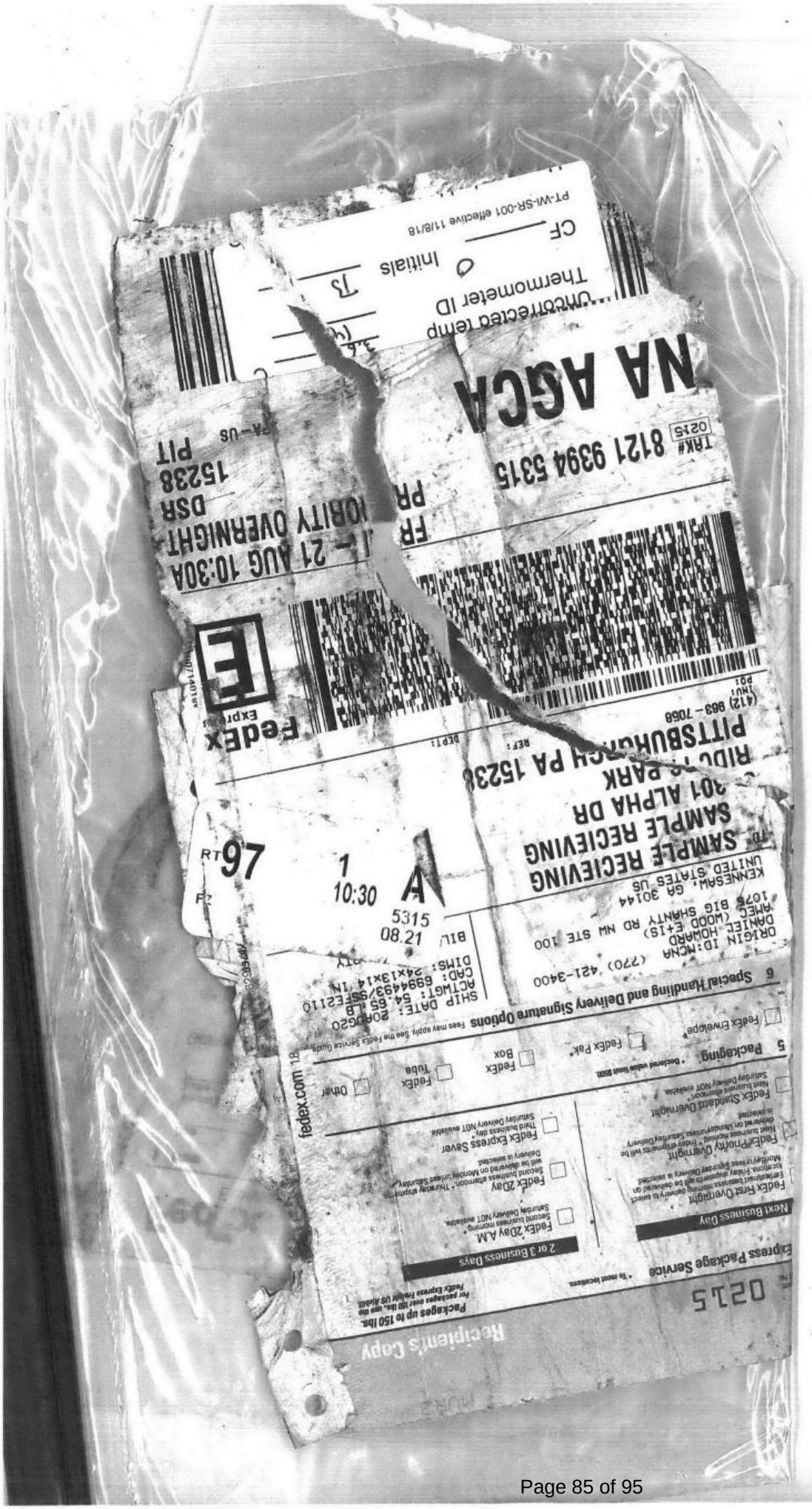
PA-US

Uncorrected temp 1.6 C
Thermometer ID 14
CF 0 Initials B

PT-WI-SR-001 effective 11/8/18

NA AGCA
TRK# 8121 9394 5326
FRI - 21 AUG 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
PA-US
SAMPLE RECIEVING
SAMPLE RECIEVING
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
BILL THIRD PARTY
Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Standard Overnight
Packaging
FedEx Envelope
FedEx Pak
Other
0215
Uncorrected temp
Thermometer ID
Initials
CF
Pt-WI-SR-001 effective 11/8/18
180-109918 Waybill


FedEx Tracking Number 8121 9394 5337
Recipient's Copy
4 Express Package Service
Next Business Day
FedEx First Overnight
ORIGIN ID:MCNA (770) 421-340
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 1
KENNESAW, GA 30144
UNITED STATES US
TO SAMPLE RECIEVING
SAMPLE RECIEVING
301 ALPHA DR
RIDC PARK
180-109929 Waybill
FedEx Express
FRI - 21 AUG 10:30A
PRIORITY OVERNIGHT
TRK# 8121 9394 5337
NA AGCA
15238
PIT
Uncorrected Temp
Thermometer ID
Initials
CF
PT-WI-SR-001 effective 11/8/18
Hold Weekday
Hold Saturday
8121 9394 5337



180-109930 Waybill

FedEx
Express
SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR
15238
PA-US
PIT
XO AGCA
Uncorrected Temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18
FedEx
8121 9394 5348
0215
EUROFINS TEST AMERICA
EUROFINS TEST AMERICA
301 ALPHA DR
PITTSBURGH PA 15238
(412) 963-7058
REF: 612201429.2002
DEPT:
SHIP DATE: 21AUG20
ACTWGT: 54.00 LB
CAD: 6994493/SSFE2110
DIMS: 24x15x15 IN
BILL THIRD PARTY
KENNESAW, GA 30144
UNITED STATES US
1078 BIG SHANTY RD NW STE 100
AMEC (MOOD E&IS)
TO:MCNR (770) 421-3400
180-109970 Waybill

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109846
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109847
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109848
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109850
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109851
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109918
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109929
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109930
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-1

Login Number: 109970
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-109846-2
Client Project/Site: CCR - Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
10/8/2020 5:03:16 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Job ID: 180-109846-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-109846-2

Comments
No additional comments.

Receipt
The samples were received on 8/20/2020 9:30 AM, 8/21/2020 9:45 AM and 8/22/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 9 coolers at receipt time were 1.1° C, 1.2° C, 1.5° C, 1.6° C, 2.1° C, 2.4° C, 2.6° C, 2.7° C and 3.6° C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-10 (180-109848-1). The container labels list an id of GWC-10 while the COC lists ARGWC-10. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-9 (180-109848-3). The container labels list an id of GWC-9 while the COC lists ARGWC-9. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-5 (180-109850-1). The container labels list an id of GWA-5 while the COC lists ARGWA-5. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWA-3 (180-109850-2). The container labels list an id of GWA-3 while the COC lists ARGWA-3. The id's on the Coc were used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): ARGWC-7 (180-109850-3). The container labels list an id of GWC-7 while the COC lists ARGWC-7. The id's on the Coc were used.

RAD
Methods 903.0, 9315: Radium-226 prep batch 160-480640:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
ARGWA-14 (180-109846-1), ARGWC-15 (180-109846-2), ARGWC-16 (180-109846-3), FB#1 (180-109847-1), ARGWA-12 (180-109847-2), ARGWA-13 (180-109847-3), ARGWC-17 (180-109847-4), ARGWC-10 (180-109848-1), DUP-1 (180-109848-2), ARGWC-9 (180-109848-3), (LCS 160-480640/1-A) and (MB 160-480640/24-A)

Method 9315: Radium-226 prep batch 160-480684:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), EB#2 (180-109851-1), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3), ARGWC-22 (180-109851-4), (LCS 160-480684/1-A), (LCSD 160-480684/2-A) and (MB 160-480684/10-A)

Methods 903.0, 9315: Radium-226 prep batch 160-481082:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
FB#2 (180-109918-1), ARGWC-23 (180-109918-2), DUP-2 (180-109918-3), ARAMW-1 (180-109918-4), ARAMW-2 (180-109918-5), ARGWC-8 (180-109929-1), ARGWC-18 (180-109929-2), ARAMW-6 (180-109970-1), ARGWC-21 (180-109970-2), (LCS 160-481082/1-A), (LCSD 160-481082/2-A) and (MB 160-481082/24-A)

Methods 903.0, 9315: Radium-226 prep batch 160-481232:

Job ID: 180-109846-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
EB#1 (180-109930-1), ARAMW-3 (180-109930-2), ARAMW-4 (180-109930-3), (LCS 160-481232/1-A) and (MB 160-481232/23-A)

Methods 904.0, 9320: Radium-228 prep batch 160-481237:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
EB#1 (180-109930-1), ARAMW-3 (180-109930-2), ARAMW-4 (180-109930-3), (LCS 160-481237/1-A) and (MB 160-481237/23-A)

Methods 904.0, 9320: Radium-228 prep batch 160-480651:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
ARGWA-14 (180-109846-1), ARGWC-15 (180-109846-2), ARGWC-16 (180-109846-3), FB#1 (180-109847-1), ARGWA-12 (180-109847-2), ARGWA-13 (180-109847-3), ARGWC-17 (180-109847-4), ARGWC-10 (180-109848-1), DUP-1 (180-109848-2), ARGWC-9 (180-109848-3), (LCS 160-480651/1-A) and (MB 160-480651/24-A)

Method 9320: Radium-228 prep batch 160-480689:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
EB#2 (180-109851-1), (LCS 160-480689/1-A), (LCSD 160-480689/2-A) and (MB 160-480689/10-A)

Method 9320: Ra228 160-480689
The laboratory control sample (LCS) recovery (137%) was high, outside acceptance criteria 75-125% indicating a potential high bias to sample activity. Activity in the sample was less than the MDC and is reported with this narrative.

Methods 904.0, 9320: Radium-228 prep batch 160-481085:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
FB#2 (180-109918-1), ARGWC-23 (180-109918-2), ARAMW-1 (180-109918-4), ARAMW-2 (180-109918-5), ARGWC-8 (180-109929-1), ARGWC-18 (180-109929-2), ARAMW-6 (180-109970-1), ARGWC-21 (180-109970-2), (LCS 160-481085/1-A), (LCSD 160-481085/2-A) and (MB 160-481085/24-A)

Method 9320: Radium-228 prep batch 160-482400:
The method blank (MB) associated with the preparation batch 160-482400 and analytical batch 160-483126 , has activity above the MDC and RL. Per client request, the data has been reported with this narrative.

Method 9320: Radium-228 prep batch 160-482400:
The Radium-228 laboratory control sample duplicate (LCSD) recovery (134%) associated with the following samples is outside the standard upper QC limit (125%) indicating a potential positive bias for that analyte. However the recovery falls within in house statistical limits (upper limit 138%). Per client request, the data have been reported with this narrative. ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3), ARGWC-22 (180-109851-4), (LCS 160-482400/1-A), (LCSD 160-482400/2-A) and (MB 160-482400/9-A)

Method 9320: Radium-228 prep batch 160-482400:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3), ARGWC-22 (180-109851-4), (LCS 160-482400/1-A), (LCSD 160-482400/2-A) and (MB 160-482400/9-A)

Job ID: 180-109846-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Method 9320: Radium-228 prep batch 160-483141:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
DUP-2 (180-109918-3), (LCS 160-483141/1-A), (LCSD 160-483141/2-A) and (MB 160-483141/4-A)

Method PrecSep_0: Radium 228 Prep Batch 160-480689:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), EB#2 (180-109851-1), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-481237:
Samples 240-135743-1 and 240-135511-2 were prepared at a reduced aliquot due to yellow discoloration and a cloudy appearance: EB#1 (180-109930-1), ARAMW-3 (180-109930-2) and ARAMW-4 (180-109930-3).All samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: <CommaMerge>.

Method PrecSep_0: Radium 228 Prep Batch 160-482400:
The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4).

Method PrecSep_0: Radium 228 Prep Batch 160-482400:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-483141:
Insufficient sample volume was available to perform a sample duplicate for the following sample: DUP-2 (180-109918-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-483141:
The following sample was prepared at a reduced aliquot due to re-prep: DUP-2 (180-109918-3).

Method PrecSep-21: Radium 226 Prep Batch 160-480684:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-109850-1), ARGWA-3 (180-109850-2), ARGWC-7 (180-109850-3), EB#2 (180-109851-1), ARGWA-19 (180-109851-2), ARGWA-20 (180-109851-3) and ARGWC-22 (180-109851-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-481232:
Samples 240-135743-1 and 240-135511-2 were prepared at a reduced aliquot due to yellow discoloration and a cloudy appearance: EB#1 (180-109930-1), ARAMW-3 (180-109930-2) and ARAMW-4 (180-109930-3).All samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: <CommaMerge>.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	10-05-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-109846-1	ARGWA-14	Water	08/19/20 13:55	08/20/20 09:30	
180-109846-2	ARGWC-15	Water	08/19/20 10:05	08/20/20 09:30	
180-109846-3	ARGWC-16	Water	08/19/20 12:05	08/20/20 09:30	
180-109847-1	FB#1	Water	08/18/20 11:00	08/20/20 09:30	
180-109847-2	ARGWA-12	Water	08/18/20 13:00	08/20/20 09:30	
180-109847-3	ARGWA-13	Water	08/18/20 14:50	08/20/20 09:30	
180-109847-4	ARGWC-17	Water	08/18/20 14:45	08/20/20 09:30	
180-109848-1	ARGWC-10	Water	08/19/20 11:35	08/20/20 09:30	
180-109848-2	DUP-1	Water	08/19/20 00:00	08/20/20 09:30	
180-109848-3	ARGWC-9	Water	08/19/20 14:25	08/20/20 09:30	
180-109850-1	ARGWA-5	Water	08/18/20 11:35	08/20/20 09:30	
180-109850-2	ARGWA-3	Water	08/18/20 13:20	08/20/20 09:30	
180-109850-3	ARGWC-7	Water	08/18/20 15:25	08/20/20 09:30	
180-109851-1	EB#2	Water	08/19/20 09:15	08/20/20 09:30	
180-109851-2	ARGWA-19	Water	08/19/20 10:56	08/20/20 09:30	
180-109851-3	ARGWA-20	Water	08/19/20 13:44	08/20/20 09:30	
180-109851-4	ARGWC-22	Water	08/19/20 15:32	08/20/20 09:30	
180-109918-1	FB#2	Water	08/20/20 10:45	08/21/20 09:45	
180-109918-2	ARGWC-23	Water	08/20/20 12:15	08/21/20 09:45	
180-109918-3	DUP-2	Water	08/20/20 00:00	08/21/20 09:45	
180-109918-4	ARAMW-1	Water	08/20/20 14:36	08/21/20 09:45	
180-109918-5	ARAMW-2	Water	08/20/20 16:35	08/21/20 09:45	
180-109929-1	ARGWC-8	Water	08/20/20 10:35	08/21/20 09:45	
180-109929-2	ARGWC-18	Water	08/20/20 17:05	08/21/20 09:45	
180-109930-1	EB#1	Water	08/20/20 09:30	08/21/20 09:45	
180-109930-2	ARAMW-3	Water	08/20/20 14:45	08/21/20 09:45	
180-109930-3	ARAMW-4	Water	08/20/20 11:45	08/21/20 09:45	
180-109970-1	ARAMW-6	Water	08/21/20 09:45	08/22/20 10:00	
180-109970-2	ARGWC-21	Water	08/21/20 10:36	08/22/20 10:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-14
Date Collected: 08/19/20 13:55
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.10 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:21	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.10 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:19	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-15
Date Collected: 08/19/20 10:05
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.48 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:21	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.48 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:19	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-16
Date Collected: 08/19/20 12:05
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.56 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.56 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: FB#1
Date Collected: 08/18/20 11:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.98 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
	Instrument ID: GFPCRED									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: FB#1
Date Collected: 08/18/20 11:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.98 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-12
Date Collected: 08/18/20 13:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.27 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.27 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-13
Date Collected: 08/18/20 14:50
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.64 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.64 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-17
Date Collected: 08/18/20 14:45
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.83 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:22	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.83 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482102	09/10/20 12:20	SCB	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-17
Date Collected: 08/18/20 14:45
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL

Client Sample ID: ARGWC-10
Date Collected: 08/19/20 11:35
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.89 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:23	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.89 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482071	09/10/20 12:22	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1
Date Collected: 08/19/20 00:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.10 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 11:23	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.10 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482071	09/10/20 12:22	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-9
Date Collected: 08/19/20 14:25
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.50 mL	1.0 g	480640	08/24/20 15:59	AVB	TAL SL
Total/NA	Analysis	9315		1			482515	09/15/20 13:55	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.50 mL	1.0 g	480651	08/24/20 18:23	AVB	TAL SL
Total/NA	Analysis	9320		1			482071	09/10/20 12:22	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			482641	09/17/20 10:50	CAH	TAL SL
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-5
Date Collected: 08/18/20 11:35
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.23 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482643	09/16/20 08:04	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			750.08 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:52	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-3
Date Collected: 08/18/20 13:20
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.90 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482643	09/16/20 09:50	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			749.34 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:52	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-7
Date Collected: 08/18/20 15:25
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.96 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 09:49	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			750.00 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: EB#2
Date Collected: 08/19/20 09:15
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.44 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 09:50	SCB	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: EB#2
Date Collected: 08/19/20 09:15
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.44 mL	1.0 g	480689	08/25/20 12:41	AVB	TAL SL
Total/NA	Analysis	9320		1			481799	09/09/20 13:23	SCB	TAL SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-19
Date Collected: 08/19/20 10:56
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.35 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 12:20	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			749.87 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-20
Date Collected: 08/19/20 13:44
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.17 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 12:21	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			749.41 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-22
Date Collected: 08/19/20 15:32
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.16 mL	1.0 g	480684	08/25/20 11:29	AVB	TAL SL
Total/NA	Analysis	9315		1			482613	09/16/20 14:43	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			750.49 mL	1.0 g	482400	09/14/20 10:14	AVB	TAL SL
Total/NA	Analysis	9320		1			483126	09/21/20 11:53	SCB	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-22
Date Collected: 08/19/20 15:32
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			484497	10/02/20 17:53	CMM	TAL SL

Client Sample ID: FB#2
Date Collected: 08/20/20 10:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.65 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.65 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482946	09/18/20 11:58	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-23
Date Collected: 08/20/20 12:15
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.18 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.18 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 11:59	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-2
Date Collected: 08/20/20 00:00
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.21 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			749.11 mL	1.0 g	483141	09/21/20 14:11	RBR	TAL SL
Total/NA	Analysis	9320		1			484399	09/30/20 12:41	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-1
Date Collected: 08/20/20 14:36
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.06 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 10:52	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.06 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-2
Date Collected: 08/20/20 16:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.58 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.58 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-8
Date Collected: 08/20/20 10:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.96 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.96 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-18
Date Collected: 08/20/20 17:05
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.67 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
	Instrument ID: GFPCRED									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-18

Lab Sample ID: 180-109929-2
Date Collected: 08/20/20 17:05
Matrix: Water
Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.67 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: EB#1

Lab Sample ID: 180-109930-1
Date Collected: 08/20/20 09:30
Matrix: Water
Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			749.85 mL	1.0 g	481232	08/31/20 13:50	AVB	TAL SL
Total/NA	Analysis	9315		1			483161	09/22/20 09:54	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			749.85 mL	1.0 g	481237	08/31/20 14:14	AVB	TAL SL
Total/NA	Analysis	9320		1			481801	09/09/20 13:13	CMM	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			484496	10/02/20 17:52	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-3

Lab Sample ID: 180-109930-2
Date Collected: 08/20/20 14:45
Matrix: Water
Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.36 mL	1.0 g	481232	08/31/20 13:50	AVB	TAL SL
Total/NA	Analysis	9315		1			483161	09/22/20 09:55	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			750.36 mL	1.0 g	481237	08/31/20 14:14	AVB	TAL SL
Total/NA	Analysis	9320		1			481801	09/09/20 13:14	CMM	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			484496	10/02/20 17:52	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-4

Lab Sample ID: 180-109930-3
Date Collected: 08/20/20 11:45
Matrix: Water
Date Received: 08/21/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			749.18 mL	1.0 g	481232	08/31/20 13:50	AVB	TAL SL
Total/NA	Analysis	9315		1			483161	09/22/20 09:55	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			749.18 mL	1.0 g	481237	08/31/20 14:14	AVB	TAL SL
Total/NA	Analysis	9320		1	1.0 mL	1.0 mL	481801	09/09/20 13:14	CMM	TAL SL
	Instrument ID: GFPCPURPLE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-4
Date Collected: 08/20/20 11:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			484496	10/02/20 17:52	CMM	TAL SL

Client Sample ID: ARAMW-6
Date Collected: 08/21/20 09:45
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.25 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.25 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-21
Date Collected: 08/21/20 10:36
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.57 mL	1.0 g	481082	08/28/20 16:42	AVB	TAL SL
Total/NA	Analysis	9315		1			483033	09/21/20 12:46	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.57 mL	1.0 g	481085	08/28/20 17:17	AVB	TAL SL
Total/NA	Analysis	9320		1			482957	09/18/20 12:00	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			483465	09/23/20 12:33	CMM	TAL SL
	Instrument ID: NOEQUIP									

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

RBR = Rachael Ratcliff

Batch Type: Analysis

CAH = Chris Hough

CMM = Chelsea Mazariegos

SCB = Sarah Bernsen

Client Sample ID: ARGWA-14

Date Collected: 08/19/20 13:55
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0256	U	0.0765	0.0765	1.00	0.144	pCi/L	08/24/20 15:59	09/15/20 11:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0805	U	0.258	0.258	1.00	0.480	pCi/L	08/24/20 18:23	09/10/20 12:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:19*	*1*
Y Carrier	*85.2*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:19*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0549	U	0.269	0.269	5.00	0.480	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-15

Date Collected: 08/19/20 10:05
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0702	U	0.0795	0.0798	1.00	0.129	pCi/L	08/24/20 15:59	09/15/20 11:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.468**		0.260	0.264	1.00	0.391	pCi/L	08/24/20 18:23	09/10/20 12:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:19*	*1*
Y Carrier	*81.5*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:19*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.538**		0.272	0.276	5.00	0.391	pCi/L		09/17/20 10:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-16

Date Collected: 08/19/20 12:05
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109846-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.161		0.0973	0.0983	1.00	0.124	pCi/L	08/24/20 15:59	09/15/20 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.4*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.144	U	0.269	0.269	1.00	0.459	pCi/L	08/24/20 18:23	09/10/20 12:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.4*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*
Y Carrier	*83.0*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.306	U	0.286	0.286	5.00	0.459	pCi/L		09/17/20 10:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: FB#1

Date Collected: 08/18/20 11:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00971	U	0.0738	0.0738	1.00	0.144	pCi/L	08/24/20 15:59	09/15/20 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.533**		0.333	0.337	1.00	0.515	pCi/L	08/24/20 18:23	09/10/20 12:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*
Y Carrier	*83.4*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.543**		0.341	0.345	5.00	0.515	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-12

Date Collected: 08/18/20 13:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.110	U	0.0818	0.0824	1.00	0.111	pCi/L	08/24/20 15:59	09/15/20 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.0*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.477	U	0.335	0.338	1.00	0.521	pCi/L	08/24/20 18:23	09/10/20 12:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.0*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*
Y Carrier	*77.4*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.587**		0.345	0.348	5.00	0.521	pCi/L		09/17/20 10:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-13

Date Collected: 08/18/20 14:50
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0366	U	0.0581	0.0582	1.00	0.101	pCi/L	08/24/20 15:59	09/15/20 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.344	U	0.261	0.263	1.00	0.410	pCi/L	08/24/20 18:23	09/10/20 12:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*
Y Carrier	*83.7*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.380	U	0.267	0.269	5.00	0.410	pCi/L		09/17/20 10:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-17

Date Collected: 08/18/20 14:45
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109847-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0989	U	0.0751	0.0756	1.00	0.104	pCi/L	08/24/20 15:59	09/15/20 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.324	U	0.246	0.248	1.00	0.386	pCi/L	08/24/20 18:23	09/10/20 12:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*
Y Carrier	*83.4*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.423**		0.257	0.259	5.00	0.386	pCi/L		09/17/20 10:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-10

Date Collected: 08/19/20 11:35
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0672	U	0.0665	0.0668	1.00	0.102	pCi/L	08/24/20 15:59	09/15/20 11:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.1*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0942	U	0.245	0.245	1.00	0.451	pCi/L	08/24/20 18:23	09/10/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.1*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*
Y Carrier	*81.9*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0271	U	0.254	0.254	5.00	0.451	pCi/L		09/17/20 10:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: DUP-1
Date Collected: 08/19/20 00:00
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0617	U	0.0657	0.0659	1.00	0.103	pCi/L	08/24/20 15:59	09/15/20 11:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*08/24/20 15:59*	*09/15/20 11:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.285	U	0.231	0.233	1.00	0.464	pCi/L	08/24/20 18:23	09/10/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*
Y Carrier	*79.3*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.224	U	0.240	0.242	5.00	0.464	pCi/L		09/17/20 10:50	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-9

Date Collected: 08/19/20 14:25
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109848-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0965		0.0703	0.0708	1.00	0.0930	pCi/L	08/24/20 15:59	09/15/20 13:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*08/24/20 15:59*	*09/15/20 13:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0279	U	0.272	0.272	1.00	0.479	pCi/L	08/24/20 18:23	09/10/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*
Y Carrier	*81.5*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.124	U	0.281	0.281	5.00	0.479	pCi/L		09/17/20 10:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-5

Date Collected: 08/18/20 11:35
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0111	U	0.0550	0.0550	1.00	0.109	pCi/L	08/25/20 11:29	09/16/20 08:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*08/25/20 11:29*	*09/16/20 08:04*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.11**	*	0.432	0.444	1.00	0.597	pCi/L	09/14/20 10:14	09/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:52*	*1*
Y Carrier	*81.9*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.12**		0.435	0.447	5.00	0.597	pCi/L		10/02/20 17:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-3

Date Collected: 08/18/20 13:20
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0283	U	0.0621	0.0622	1.00	0.114	pCi/L	08/25/20 11:29	09/16/20 09:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*08/25/20 11:29*	*09/16/20 09:50*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.104	U *	0.299	0.299	1.00	0.520	pCi/L	09/14/20 10:14	09/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:52*	*1*
Y Carrier	*82.6*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.132	U	0.305	0.305	5.00	0.520	pCi/L		10/02/20 17:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-7

Date Collected: 08/18/20 15:25
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109850-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0331	U	0.0879	0.0880	1.00	0.159	pCi/L	08/25/20 11:29	09/16/20 09:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*08/25/20 11:29*	*09/16/20 09:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.343	U *	0.360	0.362	1.00	0.588	pCi/L	09/14/20 10:14	09/21/20 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.2*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*
Y Carrier	*81.9*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.376	U	0.371	0.373	5.00	0.588	pCi/L		10/02/20 17:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: EB#2
Date Collected: 08/19/20 09:15
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0278	U	0.0658	0.0658	1.00	0.121	pCi/L	08/25/20 11:29	09/16/20 09:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*08/25/20 11:29*	*09/16/20 09:50*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0971	U *	0.314	0.314	1.00	0.546	pCi/L	08/25/20 12:41	09/09/20 13:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*08/25/20 12:41*	*09/09/20 13:23*	*1*
Y Carrier	*78.5*		*40 - 110*	*08/25/20 12:41*	*09/09/20 13:23*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.125	U	0.321	0.321	5.00	0.546	pCi/L		10/02/20 17:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-19

Date Collected: 08/19/20 10:56
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0997	U	0.100	0.100	1.00	0.159	pCi/L	08/25/20 11:29	09/16/20 12:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*08/25/20 11:29*	*09/16/20 12:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.194	U *	0.371	0.372	1.00	0.632	pCi/L	09/14/20 10:14	09/21/20 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.0*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*
Y Carrier	*84.1*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.294	U	0.384	0.385	5.00	0.632	pCi/L		10/02/20 17:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWA-20

Date Collected: 08/19/20 13:44
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.0809	0.0814	1.00	0.119	pCi/L	08/25/20 11:29	09/16/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*08/25/20 11:29*	*09/16/20 12:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.840**	*	0.402	0.409	1.00	0.582	pCi/L	09/14/20 10:14	09/21/20 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*
Y Carrier	*81.1*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.940**		0.410	0.417	5.00	0.582	pCi/L		10/02/20 17:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-22

Date Collected: 08/19/20 15:32
Date Received: 08/20/20 09:30

Lab Sample ID: 180-109851-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0279	U	0.0970	0.0970	1.00	0.178	pCi/L	08/25/20 11:29	09/16/20 14:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*08/25/20 11:29*	*09/16/20 14:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.560	U *	0.458	0.461	1.00	0.731	pCi/L	09/14/20 10:14	09/21/20 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.1*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*
Y Carrier	*78.9*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.587	U	0.468	0.471	5.00	0.731	pCi/L		10/02/20 17:53	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: FB#2

Date Collected: 08/20/20 10:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.117	U	0.101	0.101	1.00	0.146	pCi/L	08/28/20 16:42	09/21/20 10:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.4*		*40 - 110*	*08/28/20 16:42*	*09/21/20 10:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.312	U	0.367	0.368	1.00	0.605	pCi/L	08/28/20 17:17	09/18/20 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.4*		*40 - 110*	*08/28/20 17:17*	*09/18/20 11:58*	*1*
Y Carrier	*72.9*		*40 - 110*	*08/28/20 17:17*	*09/18/20 11:58*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.429	U	0.381	0.382	5.00	0.605	pCi/L		09/23/20 12:33	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-23
Date Collected: 08/20/20 12:15
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.102	0.102	1.00	0.159	pCi/L	08/28/20 16:42	09/21/20 10:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*08/28/20 16:42*	*09/21/20 10:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.141	U	0.263	0.263	1.00	0.447	pCi/L	08/28/20 17:17	09/18/20 11:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*08/28/20 17:17*	*09/18/20 11:59*	*1*
Y Carrier	*81.1*		*40 - 110*	*08/28/20 17:17*	*09/18/20 11:59*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.242	U	0.282	0.282	5.00	0.447	pCi/L		09/23/20 12:33	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: DUP-2
Date Collected: 08/20/20 00:00
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.130	U	0.115	0.115	1.00	0.173	pCi/L	08/28/20 16:42	09/21/20 10:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.4*		*40 - 110*	*08/28/20 16:42*	*09/21/20 10:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.266	U	0.400	0.401	1.00	0.670	pCi/L	09/21/20 14:11	09/30/20 12:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*09/21/20 14:11*	*09/30/20 12:41*	*1*
Y Carrier	*89.3*		*40 - 110*	*09/21/20 14:11*	*09/30/20 12:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.396	U	0.416	0.417	5.00	0.670	pCi/L		09/23/20 12:33	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-1

Date Collected: 08/20/20 14:36
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.121	U	0.104	0.105	1.00	0.155	pCi/L	08/28/20 16:42	09/21/20 10:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*08/28/20 16:42*	*09/21/20 10:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.406	U	0.321	0.323	1.00	0.509	pCi/L	08/28/20 17:17	09/18/20 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*
Y Carrier	*75.5*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.527**		0.337	0.340	5.00	0.509	pCi/L		09/23/20 12:33	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-2

Date Collected: 08/20/20 16:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109918-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.516		0.150	0.157	1.00	0.109	pCi/L	08/28/20 16:42	09/21/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*08/28/20 16:42*	*09/21/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.61		0.462	0.569	1.00	0.413	pCi/L	08/28/20 17:17	09/18/20 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*
Y Carrier	*80.4*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.13		0.486	0.590	5.00	0.413	pCi/L		09/23/20 12:33	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-8

Date Collected: 08/20/20 10:35
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.136		0.0990	0.0997	1.00	0.136	pCi/L	08/28/20 16:42	09/21/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*08/28/20 16:42*	*09/21/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00477	U	0.249	0.249	1.00	0.444	pCi/L	08/28/20 17:17	09/18/20 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*
Y Carrier	*82.6*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.140	U	0.268	0.268	5.00	0.444	pCi/L		09/23/20 12:33	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-18
Date Collected: 08/20/20 17:05
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109929-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0554	U	0.0711	0.0713	1.00	0.117	pCi/L	08/28/20 16:42	09/21/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*40 - 110*	*08/28/20 16:42*	*09/21/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.136	U	0.233	0.233	1.00	0.395	pCi/L	08/28/20 17:17	09/18/20 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*
Y Carrier	*84.5*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.191	U	0.244	0.244	5.00	0.395	pCi/L		09/23/20 12:33	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: EB#1
Date Collected: 08/20/20 09:30
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0471	U	0.0764	0.0765	1.00	0.133	pCi/L	08/31/20 13:50	09/22/20 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*08/31/20 13:50*	*09/22/20 09:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.106	U	0.348	0.348	1.00	0.609	pCi/L	08/31/20 14:14	09/09/20 13:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:13*	*1*
Y Carrier	*82.6*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:13*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.154	U	0.356	0.356	5.00	0.609	pCi/L		10/02/20 17:52	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-3

Date Collected: 08/20/20 14:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0239	U	0.0600	0.0600	1.00	0.141	pCi/L	08/31/20 13:50	09/22/20 09:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.8*		*40 - 110*	*08/31/20 13:50*	*09/22/20 09:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.113	U	0.381	0.382	1.00	0.707	pCi/L	08/31/20 14:14	09/09/20 13:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.8*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:14*	*1*
Y Carrier	*79.6*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.137	U	0.386	0.387	5.00	0.707	pCi/L		10/02/20 17:52	1

Client Sample ID: ARAMW-4

Date Collected: 08/20/20 11:45
Date Received: 08/21/20 09:45

Lab Sample ID: 180-109930-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.204		0.110	0.112	1.00	0.135	pCi/L	08/31/20 13:50	09/22/20 09:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.3*		*40 - 110*	*08/31/20 13:50*	*09/22/20 09:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.419	U	0.434	0.436	1.00	0.708	pCi/L	08/31/20 14:14	09/09/20 13:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.3*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:14*	*1*
Y Carrier	*87.5*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.624	U	0.448	0.450	5.00	0.708	pCi/L		10/02/20 17:52	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARAMW-6

Date Collected: 08/21/20 09:45
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.142	U	0.120	0.121	1.00	0.179	pCi/L	08/28/20 16:42	09/21/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.3*		*40 - 110*	*08/28/20 16:42*	*09/21/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.143	U	0.295	0.295	1.00	0.505	pCi/L	08/28/20 17:17	09/18/20 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.3*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*
Y Carrier	*80.4*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.285	U	0.318	0.319	5.00	0.505	pCi/L		09/23/20 12:33	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Client Sample ID: ARGWC-21
Date Collected: 08/21/20 10:36
Date Received: 08/22/20 10:00

Lab Sample ID: 180-109970-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0115	U	0.0905	0.0905	1.00	0.176	pCi/L	08/28/20 16:42	09/21/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.9*		*40 - 110*	*08/28/20 16:42*	*09/21/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.461**		0.264	0.267	1.00	0.394	pCi/L	08/28/20 17:17	09/18/20 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.9*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*
Y Carrier	*79.6*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.472**		0.279	0.282	5.00	0.394	pCi/L		09/23/20 12:33	1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-480640/24-A
Matrix: Water
Analysis Batch: 482515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480640

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04136	U	0.0641	0.0642	1.00	0.111	pCi/L	08/24/20 17:59	09/15/20 13:55	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.1*		*40 - 110*	*08/24/20 17:59*	*09/15/20 13:55*	*1*

Lab Sample ID: LCS 160-480640/1-A
Matrix: Water
Analysis Batch: 482515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480640

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.31		1.14	1.00	0.135	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*74.3*		*40 - 110*

Lab Sample ID: MB 160-480684/10-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480684

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01097	U	0.0590	0.0590	1.00	0.116	pCi/L	08/25/20 11:29	09/16/20 14:43	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*08/25/20 11:29*	*09/16/20 14:43*	*1*

Lab Sample ID: LCS 160-480684/1-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480684

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.909		1.06	1.00	0.157	pCi/L	87	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*89.1*		*40 - 110*

Lab Sample ID: LCSD 160-480684/2-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480684

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	10.37		1.10	1.00	0.119	pCi/L	91	75 - 125	0.21	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-480684/2-A
Matrix: Water
Analysis Batch: 482613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480684

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	86.1		40 - 110

Lab Sample ID: MB 160-481082/24-A
Matrix: Water
Analysis Batch: 483033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481082

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04354	U	0.0772	0.0773	1.00	0.137	pCi/L	08/28/20 16:42	09/21/20 12:46	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.6		40 - 110	08/28/20 16:42	09/21/20 12:46	1

Lab Sample ID: LCS 160-481082/1-A
Matrix: Water
Analysis Batch: 483033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481082

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.948		1.12	1.00	0.128	pCi/L	88	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.1		40 - 110

Lab Sample ID: LCSD 160-481082/2-A
Matrix: Water
Analysis Batch: 483033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 481082

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	10.11		1.14	1.00	0.151	pCi/L	89	75 - 125	0.07	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	82.9		40 - 110

Lab Sample ID: MB 160-481232/23-A
Matrix: Water
Analysis Batch: 483161

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481232

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08056	U	0.0728	0.0732	1.00	0.109	pCi/L	08/31/20 13:50	09/22/20 11:59	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.8		40 - 110	08/31/20 13:50	09/22/20 11:59	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-481232/1-A
Matrix: Water
Analysis Batch: 483161

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481232

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	13.59		1.42	1.00	0.121	pCi/L	90	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-480651/24-A
Matrix: Water
Analysis Batch: 482071

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480651

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01611	U	0.232	0.232	1.00	0.414	pCi/L	08/24/20 18:23	09/10/20 12:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.1*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*
Y Carrier	*85.2*		*40 - 110*	*08/24/20 18:23*	*09/10/20 12:22*	*1*

Lab Sample ID: LCS 160-480651/1-A
Matrix: Water
Analysis Batch: 482102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480651

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.82	8.153		1.08	1.00	0.560	pCi/L	104	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*74.3*		*40 - 110*
Y Carrier	*79.6*		*40 - 110*

Lab Sample ID: MB 160-480689/10-A
Matrix: Water
Analysis Batch: 481811

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480689

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.03910	U	0.226	0.226	1.00	0.418	pCi/L	08/25/20 12:41	09/09/20 13:26	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*08/25/20 12:41*	*09/09/20 13:26*	*1*
Y Carrier	*86.0*		*40 - 110*	*08/25/20 12:41*	*09/09/20 13:26*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-480689/1-A
Matrix: Water
Analysis Batch: 481799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480689

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.82	10.69	*	1.30	1.00	0.596	pCi/L	137	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*89.1*		*40 - 110*
Y Carrier	*76.6*		*40 - 110*

Lab Sample ID: LCSD 160-480689/2-A
Matrix: Water
Analysis Batch: 481799

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480689

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.82	9.539		1.19	1.00	0.634	pCi/L	122	75 - 125	0.46	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*86.1*		*40 - 110*
Y Carrier	*82.2*		*40 - 110*

Lab Sample ID: MB 160-481085/24-A
Matrix: Water
Analysis Batch: 482957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481085

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1718	U	0.210	0.210	1.00	0.347	pCi/L	08/28/20 17:17	09/18/20 12:00	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*
Y Carrier	*88.6*		*40 - 110*	*08/28/20 17:17*	*09/18/20 12:00*	*1*

Lab Sample ID: LCS 160-481085/1-A
Matrix: Water
Analysis Batch: 482946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481085

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.80	8.379		1.05	1.00	0.503	pCi/L	107	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.1*		*40 - 110*
Y Carrier	*82.2*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-481085/2-A
Matrix: Water
Analysis Batch: 482946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 481085

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.80	7.434		0.978	1.00	0.518	pCi/L	95	75 - 125	0.47	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*82.9*		*40 - 110*
Y Carrier	*79.3*		*40 - 110*

Lab Sample ID: MB 160-481237/23-A
Matrix: Water
Analysis Batch: 481838

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481237

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.006322	U	0.314	0.314	1.00	0.564	pCi/L	08/31/20 14:14	09/09/20 13:16	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:16*	*1*
Y Carrier	*84.5*		*40 - 110*	*08/31/20 14:14*	*09/09/20 13:16*	*1*

Lab Sample ID: LCS 160-481237/1-A
Matrix: Water
Analysis Batch: 481801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481237

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.4	10.82		1.39	1.00	0.707	pCi/L	104	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.1*		*40 - 110*
Y Carrier	*82.6*		*40 - 110*

Lab Sample ID: MB 160-482400/9-A
Matrix: Water
Analysis Batch: 483126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482400

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.266		0.458	0.473	1.00	0.620	pCi/L	09/14/20 10:14	09/21/20 11:53	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*
Y Carrier	*81.5*		*40 - 110*	*09/14/20 10:14*	*09/21/20 11:53*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-482400/1-A
Matrix: Water
Analysis Batch: 483126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482400

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.4	12.18		1.46	1.00	0.526	pCi/L	117	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.0*		*40 - 110*
Y Carrier	*86.0*		*40 - 110*

Lab Sample ID: LCSD 160-482400/2-A
Matrix: Water
Analysis Batch: 483126

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 482400

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			10.4	13.89	*	1.69	1.00	0.690	pCi/L	134	75 - 125	0.54	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*70.9*		*40 - 110*
Y Carrier	*83.4*		*40 - 110*

Lab Sample ID: MB 160-483141/4-A
Matrix: Water
Analysis Batch: 484399

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 483141

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1677	U	0.434	0.435	1.00	0.752	pCi/L	09/21/20 14:11	09/30/20 12:43	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.9*		*40 - 110*	*09/21/20 14:11*	*09/30/20 12:43*	*1*
Y Carrier	*85.2*		*40 - 110*	*09/21/20 14:11*	*09/30/20 12:43*	*1*

Lab Sample ID: LCS 160-483141/1-A
Matrix: Water
Analysis Batch: 484399

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 483141

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.4	11.05		1.41	1.00	0.674	pCi/L	107	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.3*		*40 - 110*
Y Carrier	*80.4*		*40 - 110*

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-109846-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-483141/2-A
Matrix: Water
Analysis Batch: 484399

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 483141

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			10.4	10.75		1.39	1.00	0.640	pCi/L	104	75 - 125	0.11	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*80.7*		*40 - 110*
Y Carrier	*78.9*		*40 - 110*

Rad

Prep Batch: 480640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	PrecSep-21	
180-109846-2	ARGWC-15	Total/NA	Water	PrecSep-21	
180-109846-3	ARGWC-16	Total/NA	Water	PrecSep-21	
180-109847-1	FB#1	Total/NA	Water	PrecSep-21	
180-109847-2	ARGWA-12	Total/NA	Water	PrecSep-21	
180-109847-3	ARGWA-13	Total/NA	Water	PrecSep-21	
180-109847-4	ARGWC-17	Total/NA	Water	PrecSep-21	
180-109848-1	ARGWC-10	Total/NA	Water	PrecSep-21	
180-109848-2	DUP-1	Total/NA	Water	PrecSep-21	
180-109848-3	ARGWC-9	Total/NA	Water	PrecSep-21	
MB 160-480640/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-480640/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 480651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109846-1	ARGWA-14	Total/NA	Water	PrecSep_0	
180-109846-2	ARGWC-15	Total/NA	Water	PrecSep_0	
180-109846-3	ARGWC-16	Total/NA	Water	PrecSep_0	
180-109847-1	FB#1	Total/NA	Water	PrecSep_0	
180-109847-2	ARGWA-12	Total/NA	Water	PrecSep_0	
180-109847-3	ARGWA-13	Total/NA	Water	PrecSep_0	
180-109847-4	ARGWC-17	Total/NA	Water	PrecSep_0	
180-109848-1	ARGWC-10	Total/NA	Water	PrecSep_0	
180-109848-2	DUP-1	Total/NA	Water	PrecSep_0	
180-109848-3	ARGWC-9	Total/NA	Water	PrecSep_0	
MB 160-480651/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-480651/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 480684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total/NA	Water	PrecSep-21	
180-109850-2	ARGWA-3	Total/NA	Water	PrecSep-21	
180-109850-3	ARGWC-7	Total/NA	Water	PrecSep-21	
180-109851-1	EB#2	Total/NA	Water	PrecSep-21	
180-109851-2	ARGWA-19	Total/NA	Water	PrecSep-21	
180-109851-3	ARGWA-20	Total/NA	Water	PrecSep-21	
180-109851-4	ARGWC-22	Total/NA	Water	PrecSep-21	
MB 160-480684/10-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-480684/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-480684/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 480689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109851-1	EB#2	Total/NA	Water	PrecSep_0	
MB 160-480689/10-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-480689/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-480689/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 481082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 481082 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-2	ARGWC-23	Total/NA	Water	PrecSep-21	
180-109918-3	DUP-2	Total/NA	Water	PrecSep-21	
180-109918-4	ARAMW-1	Total/NA	Water	PrecSep-21	
180-109918-5	ARAMW-2	Total/NA	Water	PrecSep-21	
180-109929-1	ARGWC-8	Total/NA	Water	PrecSep-21	
180-109929-2	ARGWC-18	Total/NA	Water	PrecSep-21	
180-109970-1	ARAMW-6	Total/NA	Water	PrecSep-21	
180-109970-2	ARGWC-21	Total/NA	Water	PrecSep-21	
MB 160-481082/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-481082/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-481082/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 481085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-1	FB#2	Total/NA	Water	PrecSep_0	
180-109918-2	ARGWC-23	Total/NA	Water	PrecSep_0	
180-109918-4	ARAMW-1	Total/NA	Water	PrecSep_0	
180-109918-5	ARAMW-2	Total/NA	Water	PrecSep_0	
180-109929-1	ARGWC-8	Total/NA	Water	PrecSep_0	
180-109929-2	ARGWC-18	Total/NA	Water	PrecSep_0	
180-109970-1	ARAMW-6	Total/NA	Water	PrecSep_0	
180-109970-2	ARGWC-21	Total/NA	Water	PrecSep_0	
MB 160-481085/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-481085/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-481085/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 481232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109930-1	EB#1	Total/NA	Water	PrecSep-21	
180-109930-2	ARAMW-3	Total/NA	Water	PrecSep-21	
180-109930-3	ARAMW-4	Total/NA	Water	PrecSep-21	
MB 160-481232/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-481232/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 481237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109930-1	EB#1	Total/NA	Water	PrecSep_0	
180-109930-2	ARAMW-3	Total/NA	Water	PrecSep_0	
180-109930-3	ARAMW-4	Total/NA	Water	PrecSep_0	
MB 160-481237/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-481237/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 482400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109850-1	ARGWA-5	Total/NA	Water	PrecSep_0	
180-109850-2	ARGWA-3	Total/NA	Water	PrecSep_0	
180-109850-3	ARGWC-7	Total/NA	Water	PrecSep_0	
180-109851-2	ARGWA-19	Total/NA	Water	PrecSep_0	
180-109851-3	ARGWA-20	Total/NA	Water	PrecSep_0	
180-109851-4	ARGWC-22	Total/NA	Water	PrecSep_0	
MB 160-482400/9-A	Method Blank	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 482400 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-482400/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-482400/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 483141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-109918-3	DUP-2	Total/NA	Water	PrecSep_0	
MB 160-483141/4-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-483141/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-483141/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: D Howard, EG Allen, A Shreddits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			Other:
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil/waste, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals (6020) + Hg (7470A)	Ra 226 + Ra 228 (9315/9320)	Fluoride (300)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H		
ARGWA-14	8/19/20	1355	G	W			X	X	X	3	pH = 6.62
ARGWC-15	↓	1005	G	W			X	X	X	3	pH = 6.47
ARGWC-16	↓	1205	G	W			X	X	X	3	pH = 5.24

160-109846 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
David K Howard	8/19/20 / 1815		Dallas Waters	8-20-20 9:30	ETA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: D Howard, E Gulka, A Shandeck	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 1
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals 6020B + Hg 7470A	Fluoride 300.0_ORGFM_28D	Radium 226/228 (9315/9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	H	D		
FB#1	8/18/20	1100	G	W			1	1	1	3	
ARGWA-12		1300	G	W			1	1	1	3	pH = 6.48
ARGWA-13		1450	G	W			1	1	1	3	pH = 6.15
ARGWC-17		1445	G	W			1	1	1	3	pH = 5.07

180-109647 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Daniel L Howard	8/18/20 / 1730	WoodE&IS	Donna Akins	8-20-20 930	Eurofins
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward, EGilker, AShorshi	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, s=solid, o=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals (6020) + Hg (7470A)	Radium 226/228 (9315/9320)	Fluoride (300.)	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	D	H		
~~AGGW~~ ARGWC-10	8/19/20	1135	G	W			X	X	X	3	pH = 7.06
DUP-1	↓	—	G	W			X	X	X	3	pH = 7.06
ARGWC-9		1425	G	W			X	X	X	3	pH = 7.21

160-109848 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: David R Howard	Date/Time: 8/19/20/1815	Company	Received by: Dellie Water	Date/Time: 8-20-20	Company: ET AP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:30	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver. 01/16/2019

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301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward, EGuiller, AStoredahl	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 1
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			Other:
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals(6020B)+Hg 7470A	Fluoride 300.0_ORGPM_28D	Radium 226/228(9315/9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
ARGWA-5	8/18/20	1135	G	W			1	1	1	3	pH = 6.18
ARGWA-3	↓	1320	G	W			1	1	1	3	pH = 6.47
ARGWC-7		1525	G	W			1	1	1	3	pH = 6.70

180-109850 Chain of Custody

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client X Disposal By Lab ☐ Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Daniel K Howard	8/18/20/1730	Wood E&IS			
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward, EGuilka, ASheredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil/waste, Air, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals (6020) + Hg (7470A)	Radium 226/228 (9315/9320)	Fluoride (300)	Fluoride, Chloride, Sulfate 300.0	TDS 2540C	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H	H	H		
EB#2	8/19/20	0915	G	W			X	X		X	X	3	
ARGWA-19		1056	G	W			X	X	X			3	pH = 6.25
ARGWA-20		1344	G	W			X	X	X			3	pH = 6.16
ARGWC-22		1532	G	W			X	X		X	X	3	pH = 6.21

180-109851 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For: Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	8/19/20 / 1815			8-20-20	EHPT
Relinquished by	Date/Time	Company	Received by	Date/Time 7:30	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: [ ] Yes [ ] No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: DHoward	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			Other:
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Preservation Code:	Total Number of containers	Special Instructions/Note:
FB#2	8/20/20	1045	G	W			D	3	
ARGWC-23		1215	G	W			D	3	pH = 6.33
DUP-2		--	G	W			D	3	pH = 6.33
ARAMW-1		1436	G	W			H	3	pH = 6.09
ARAMW-2		1635	G	W			H	3	pH = 5.99

App IV + Hg (6020B) + Hg (7470A); Radium 226/228 (9315/9320); Chloride, Sulfate, Fluoride (300); TDS 2540C; Fluoride (300)

180-109918 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological	[ ] Return To Client [X] Disposal By Lab [ ] Archive For: Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
David L Howard	8/20/20 1840	Wood	Dellie Watson	8-21-20 7:45	EHHH
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: [ ] Yes [ ] No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver. 01/16/2019

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301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: Ever Guillen, A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			Other:
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil/waste, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App III metals+Hg (6020B/7470A) Tot	Radium 226/228 (9315/9320)	Fluoride (300)	App III metals+Hg (6020B/7470A) Diss	Total Number of containers	Special Instructions/Note:
			Preservation Code				D	D	H	D		
ARGWC-8	8/20/20	1035	G	W			X	X	X		3	pH = 6.34
ARGWC-18	8/20/20	1705	G	W	Y		X	X	X	X	4	pH = 6.43

180-109929 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological	[ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel K Howard	8/20/20 1840	Wood	Dellue Watson	8-21-20 945	ETA II
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: Ever Guillen, Andrew Sheridan	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	PO #:			
Phone: 404-506-7116(Tel)	WO #:			
Email: SCS Contacts	Project #: 18020201			
Project Name: CCR - Plant Arkwright	SSOW#:			
Site: Georgia				

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)
	Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, s=solid, o=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals + Hg (6020B/7470A)	Radium 226/228 (9315/9320)	Fluoride (300)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H		
EB#1	8/20/20	0930	G	W			X	X	X		
ARAMW-3		1445	G	W			X	X	X		pH = 6.24
ARAMW-4		1145	G	W			X	X	X		pH = 5.77

180-109930 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For: _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
David L Howard	8/20/20 / 1840	Wood		8-21-20	EHAP
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 945	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver. 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: Howard, AShoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page: 1 of 1
Company: GA Power		Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			Other:
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Oil, Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	App IV metals + Hg (6020A/7470A)	Radium 226/228 (9315/9320)	Fluoride (300)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	H		
ARAMW-6	8/21/20	0945	G	W			X	X	X	3	pH=6.32
ARGWC-21	↓	1036	G	W			X	X	X	3	pH=5.89

180-109970 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client X Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

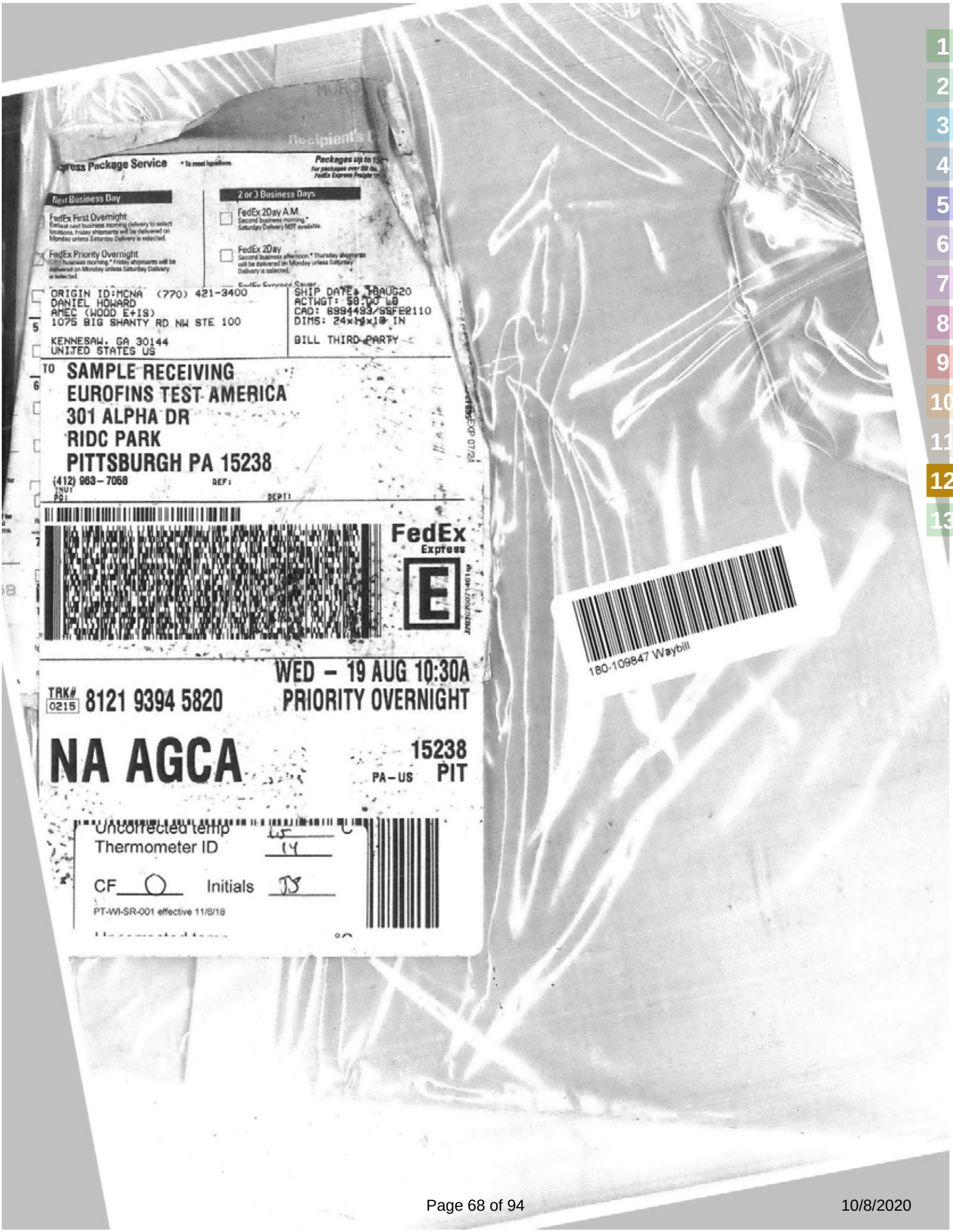
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Daniel L Howard	Date/Time: 8/21/20 1315	Company	Received by: Daniel Watson
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Date/Time	Company
8-22-20 10:00	ETA Pgh
Date/Time	Company
Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019


Recipient's Copy
94 5359
0215
Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
ORIGIN ID:MCNA (770) 421-3
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE
KENNESAW, GA 30144
UNITED STATES US
SAMPLE RECIEVIN
EUROFINS TEST A
301 ALPHA DR
PITTSBURGH PA
(412) 963-7058
Hold Weekday
Hold Saturday
STE 100
GA
ZIP 30144-3
Phone
Uncorrected Temp
Thermometer ID
CF 0
Initials
PT-WI-SR-001 effective 11/8/18
180-109846 Waybill


Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
2 or 3 Business Days
FedEx 2Day A.M.
FedEx 2Day
ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 18AUG20
ACTWGT: 50.00 LB
CAD: 6994493/SSFE2110
DIMS: 24x14x10 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF:
DEPT:
FedEx Express
TRK# 0215 8121 9394 5820
WED - 19 AUG 10:30A
PRIORITY OVERNIGHT
NA AGCA
15238
PA-US PIT
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18
180-109847 Waybill

Express Package Service

Next Business Day

FedEx First Overnight

FedEx Priority Overnight

FedEx Standard Overnight

2 or 3 Business Days

FedEx 2Day A.M.

FedEx 2Day

FedEx Express Saver

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 19AUG20
ACTWGT: 58.65 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058

FedEx Express

A
5360
08.20

TRK# 0215 8121 9394 5360

THU - 20 AUG 10:30A
PRIORITY OVERNIGHT
DSR
15238
PA-US PIT

NA AGCA

Uncorrected temp
Thermometer ID
CF 0
Initials

PT-WI-SR-001 effective 11/9/18

05884

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 18AUG20
ACTWGT: 42.15 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0215 8121 9394 5830

WED - 19 AUG 10:30A
PRIORITY OVERNIGHT

NA AGCA

AHS
15238
PA-US PIT

Uncorrected temp 21 °C
Thermometer ID 14
CF 0 Initials JS
PT-WI-SR-001 effective 11/8/18

180-109950 Waybill

Align Open End of FedEx Pouch Here

FT 97
1
10:30 A
5841
08.20
FZ

180-109851 Waybill

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC FW(WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 19AUG20
ACTWGT: 57.45 LB
CAD: 6994493/SSFE2110
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO:
DEPT:

FedEx Express

TRK# 0215 8121 9394 5841

THU - 20 AUG 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT

NA AGCA

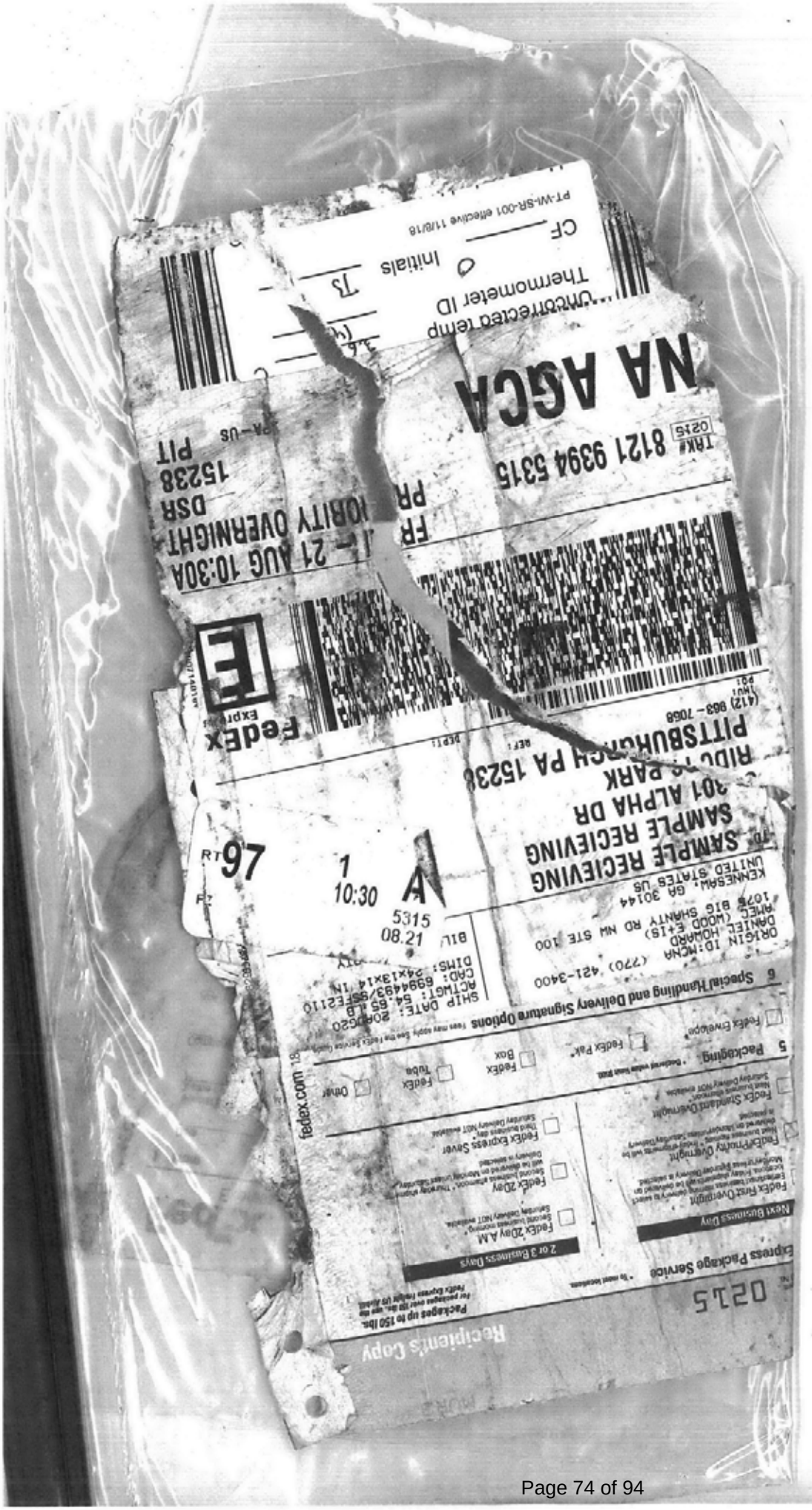
PA-US

Uncorrected temp 1.6 C
Thermometer ID 14
CF 0 Initials JB

PT-WI-SR-001 effective 11/8/18

NA AGCA
Uncorrected temp
Thermometer ID
Initials
CF
Pt-WI-SR-001 effective 11/8/18
TRK# 8121 9394 5326
0215
FRI - 21 AUG 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
PA-US
FedEx
Express
(412) 863-7068
INV:
PO:
DEPT:
10 SAMPLE RECIEVING
SAMPLE RECIEVING
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+I&)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 20AUG20
ACTWGT: 81.15 LB
CAD: 6994493/SSFE2110
DIMS: 24x14x13 IN
BILL THIRD PARTY
5 Packaging
4 Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Standard Overnight
FedEx Envelope
FedEx Pak
Other
0215
180-109918 Waybill


FedEx Tracking Number 8121 9394 5337
Phone 770 421-3349
SHANTY RD NW STE 100
State GA ZIP 30144-3652
Phone 412 963-7058
Hold Weekday
Hold Saturday
State PA ZIP 15238
8121 9394 5337
Recipient's Copy
Express Package Service
Next Business Day
FedEx First Overnight
ORIGIN ID:MCNR (770) 421-340
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 1
KENNESAW, GA 30144
UNITED STATES US
SAMPLE RECIEVING
SAMPLE RECIEVING
301 ALPHA DR
RIDC PARK
(412) 963-
180-109929 Waybill
FedEx Express
FRI - 21 AUG 10:30A
PRIORITY OVERNIGHT
TRK# 8121 9394 5337
0215
NA AGCA
15238
PIT
Uncorrected Temp
Thermometer ID
Initials
CF 0
PT-WI-SR-001 effective 11/8/18



180-109930 Waybill

FedEx
Express
FedEx
SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR
8121 9394 5348
XO AGCA
15238
PA-US
PIT
Uncorrected Temp
Thermometer ID
Initials
CF
PITTSBURGH PA 15238
EUROFINS TEST AMERICA
301 ALPHA DR
EUROFINS TEST AMERICA
1079 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
BILL THIRD PARTY
DIMS: 24x15x15 IN
CAD: 6894493/SSFE2110
RCTWGT: 94.00 LB
SHIP DATE: 21AUG20
180-10897O Wayb

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-408215.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin: Georgia	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-109846-2
Address: 13715 Rider Trail North,	Due Date Requested: 9/23/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Arkwright	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium 226	9320_Ra228/PrecSep_0 Radium 228	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
ARGWA-14 (180-109846-1)	8/19/20	13:55 Eastern		Water			X	X	X	1	
ARGWC-15 (180-109846-2)	8/19/20	10:05 Eastern		Water			X	X	X	1	
ARGWC-16 (180-109846-3)	8/19/20	12:05 Eastern		Water			X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/21/20 1700		FedEx		
2	FedEx					
3					8/22/20 08:30	ETASTL

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109846
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109846
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109847
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109847
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109848
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109848
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109850
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109850
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109851
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109851
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/22/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109918
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109918
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109929
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109929
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109930
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109930
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109970
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-109846-2

Login Number: 109970
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 08/25/20 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Georgia Power Site Sampling Data (GW)

Site Name : Plant Arkwright AP3 — Date : 8/18-21/2020

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
ARGWA-5	8/18/20	1135				
ARGWA-3	8/18/20	1320				
ARGWC-7	8/18/20	1525				
FB#1	8/18/20	1100	FB#1			Field Blank for 8/18/20 beginning of sampling
ARGWC-17	8/18/20	1445				
ARGWA-12	8/18/20	1300				
ARGWA-13	8/18/20	1450				
ARGWA-14	8/19/20	1355				
ARGWC-15	8/19/20	1005				
ARGWC-16	8/19/20	1205				
ARGWC-9	8/19/20	1425				
ARGWC-10	8/19/20	1135				
DUP-1	8/19/20	—			ARGWC-10	Duplicate of ARGWC-10(DUP-1)
ARGWC-8	8/20/20	1035				
ARGWC-18	8/20/20	1705				Collected Tot+Diss App IV metals — Turb=26.3 after 5hrs45min
ARAMW-4	8/20/20	1145				
ARAMW-3	8/20/20	1445				
ARAMW-6	8/20/20	0945				
EB#1	8/20/20	0930		EB#1		Equip Blank of bladder pump

Additional comments : Field Blank FB#1 was taken at Ash Pond 3 using ASTM Type I/II reagent water. RICCA Brand Lot# 2002A53, Exp 8/2021. Equip Blank EB#1 was collected From QED Sample Pro Bladder Pump ID# 20153 using ASTM Type I/II reagent water RICCA Brand Lot# 2002A53, Exp 08/2021.

Product Name: Low-Flow System

Date: 2020-08-20 15:25:52

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED Sample Pro
Company Name	Wood	Tubing Type	LDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARAMW-3	Tubing Length	66 ft
Latitude	32º 55' 31.01"		
Longitude	-83º -42' -30.63"		
Sonde SN	369323		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	62 ft

Well Information:		Pumping Information:	
Well ID	ARAMW-3	Final Pumping Rate	190 mL/min
Well diameter	2.00 in	Total System Volume	0.6845859 L
Well Total Depth	67.90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.4 in
Depth to Water	25.57 ft	Total Volume Pumped	7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:22:02	1500.02	22.20	6.24	333.82	5.66	26.21	0.25	-22.47
Last 5	14:27:02	1800.02	22.33	6.23	334.76	5.49	26.20	0.20	-24.05
Last 5	14:32:02	2100.02	21.55	6.24	336.69	4.39	26.20	0.18	-24.30
Last 5	14:37:02	2400.02	21.39	6.24	338.16	3.97	26.19	0.15	-24.73
Last 5	14:42:02	2699.99	21.26	6.24	340.38	3.37	26.18	0.15	-26.22
Variance 0			-0.78	0.01	1.94			-0.02	-0.25
Variance 1			-0.16	-0.00	1.46			-0.02	-0.43
Variance 2			-0.13	0.00	2.22			-0.01	-1.49

Notes

Start purging well @ 13:59, stop @ 14:42; Initial purge rate of 160 ml/min increased to 190-195 ml/min @ 14:03; Water has strong sulfurous odor; Sample collected @ 14:45; pH during collection is 6.24; Weather is cloudy with thunderstorms 27 degrees C

Grab Samples

ARAMW-3

Groundwater sample

Product Name: Low-Flow System

Date: 2020-08-20 12:02:04

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED Sample Pro
Company Name	Wood	Tubing Type	LDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARAMW-4	Tubing Length	56 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369323		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	52 ft

Well Information:		Pumping Information:	
Well ID	ARAMW-4	Final Pumping Rate	195 mL/min
Well diameter	2.00 in	Total System Volume	0.6399516 L
Well Total Depth	57.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.7 in
Depth to Water	21.44 ft	Total Volume Pumped	7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:21:52	1500.02	20.51	5.92	1712.92	1.01	21.53	0.22	6.09
Last 5	11:26:52	1800.02	20.58	5.85	1718.18	0.87	21.54	0.19	8.72
Last 5	11:31:52	2100.02	20.68	5.81	1711.91	0.80	21.54	0.17	11.08
Last 5	11:36:52	2400.02	20.64	5.79	1707.67	0.70	21.54	0.15	13.17
Last 5	11:41:52	2700.02	20.55	5.77	1687.25	0.60	21.54	0.13	17.76
Variance 0			0.11	-0.04	-6.26			-0.02	2.35
Variance 1			-0.05	-0.02	-4.25			-0.02	2.09
Variance 2			-0.09	-0.01	-20.42			-0.02	4.60

Notes

Start purging well @ 10:59, stop @ 11:41; Initial purge rate of 100 ml/min increased to 190-200 ml/min @ 11:07; Water has stong sulfurous odor; Collect sample @ 11:45; pH @ collection is 5.77; Weather is clear 28 degrees C

Grab Samples

ARAMW-4

Groundwater sample

Product Name: Low-Flow System

Date: 2020-08-21 10:35:09

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Barnant Co Portable Sampler
Company Name	Wood	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARAMW-6	Tubing Length	32.0 ft
Latitude	32º 54' 8.83"		
Longitude	-83º -40' -57.39"		
Sonde SN	369323		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	27.0 ft

Well Information:		Pumping Information:	
Well ID	ARAMW-6	Final Pumping Rate	215 mL/min
Well diameter	2.00 in	Total System Volume	0.3528295 L
Well Total Depth	32.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.2 in
Depth to Water	13.45 ft	Total Volume Pumped	7.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:19:25	900.02	20.98	6.36	387.85	4.20	14.33	0.74	-34.19
Last 5	09:24:25	1200.03	21.04	6.34	378.79	2.91	14.34	0.23	-20.73
Last 5	09:29:25	1500.02	21.04	6.34	372.42	0.99	14.34	0.19	-9.15
Last 5	09:34:25	1800.02	21.08	6.33	367.65	0.46	14.35	0.17	-2.37
Last 5	09:39:25	2100.02	21.08	6.32	364.09	0.15	14.34	0.15	1.91
Variance 0			-0.00	-0.01	-6.37			-0.04	11.58
Variance 1			0.04	-0.01	-4.76			-0.02	6.79
Variance 2			-0.00	-0.01	-3.56			-0.02	4.27

Notes

Start purging well @ 09:05, stop @ 09:39; Initial purge rate of 200 ml/min increased to 215 ml/min @ 09:15; Water has strong sulfurous odor; Collect sample @ 09:45; pH during collection is 6.32; Weather is cloudy with light rain 23 degrees C

Grab Samples

ARAMW-6

Groundwater sample

Product Name: Low-Flow System

Date: 2020-08-19 14:06:51

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood	Tubing Type	LDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWA-14	Tubing Length	55 ft
Latitude	32º 54' 8.95"		
Longitude	-83º -40' -57.63"		
Sonde SN	369323		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	53.45 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-14	Final Pumping Rate	80 mL/min
Well diameter	2.00 in	Total System Volume	0.7254883 L
Well Total Depth	58.45 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	32.6 in
Depth to Water	44.44 ft	Total Volume Pumped	2.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	13:28:00	600.02	22.87	6.40	431.03	0.75	45.52	4.38	143.63
Last 5	13:33:00	900.15	22.25	6.60	449.71	0.66	46.07	4.09	126.50
Last 5	13:38:00	1200.48	22.24	6.63	425.95	0.64	46.71	5.05	143.18
Last 5	13:43:00	1500.46	22.39	6.64	401.34	0.58	47.18	5.36	149.79
Last 5	13:48:00	1800.45	22.35	6.56	327.32	0.56	47.55	5.70	158.84
Variance 0			-0.01	0.03	-23.75			0.97	16.68
Variance 1			0.14	0.01	-24.61			0.31	6.60
Variance 2			-0.04	-0.08	-74.03			0.33	9.05

Notes

Start purging well @ 13:20, stop @ 13:48; Initial purge rate of 90 ml/min reduced to 80 ml/min @ 13:34; Sample collected @ 13:55 prior to water level drawing below sand pack; pH @ sampling is 6.45; Weather is overcast 29 degrees C

Grab Samples

ARGWA-14

Groundwater sample

PROJECT NAME: Plant Arkwright, Macon GA

PART 2

FIELD SAMPLING REPORT

Project Number: 6122-20-1429

Wood
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST __2ND __3RD __4TH __5TH __6TH __7TH __8TH __9TH __10TH __11TH __12TH __Other _____
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: ARGWA-14 Matrix: Groundwater
WELL MATERIAL: PVC __SS __ Other
SAMPLE METHOD: LOW FLOW

DUP./REP. OF: NA

Top of Screened Interval (btoc): 48.46 ft
Screen length: 10.0 ft
Pump Intake Set at (btoc) 53.46 ft
or
Tubing Inlet Set at (btoc): --
Arrived at: 12:50

WELL DIAMETER: 2.00-in
DEPTH TO WATER: 44.44 ft btoc GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 58.45 ft btoc
WATER COLUMN HEIGHT: 14.01 ft
PURGE VOLUME: 2.28 gal x 3 = 6.85 gal (25.9 L)
[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal) / L	x DO (+/-0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/l record only)	ORP (mV) record only	✓ pH (+/- 0.1 pH units)	x SPEC. COND. (µs/cm)(+/- 5%)	TEMP (°C) record only	✓ TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100ml/min)	Now Water Level (Ft BTOC)	
Initial: 13:27	0.1 / 0.2	5.72	153.10	6.26	295.92	26.31	0.65	80 (NA)	44.83	AS 8/19/20
13:27	0.2 / 0.7	4.38	143.60	6.40	431.03	22.87	0.75	890 (NA)	45.52	
13:33	0.3 / 1.1	4.09	126.50	6.60	449.71	22.25	0.66	90 (NA)	46.07	
13:38	0.4 / 1.6	5.05	143.20	6.63	425.95	22.24	0.64	80 (NA)	46.71	
13:43	0.5 / 2.0	5.36	149.80	6.64	401.34	22.39	0.58	80 (NA)	47.18	
* 13:48	0.6 / 2.4	5.70	158.80	6.56	327.32	22.35	0.56	80 (NA)	47.55	
COLLECTING SAMPLE & MEASURING PARAMETERS DURING:										
14:24	—	5.40	139.1	6.62	386.00	22.38	0.38	80 (NA)	—	
14:29	—	4.90	135.8	6.62	401.2	22.26	0.44	80 (NA)	—	

NOTES:
1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 feet or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
If well is purged dry, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
pH reading at sample collection is 6.45, a pH of 6.62 is more accurate
pH & Spec. Cond. are continuing to drop.
* Reading is anomalous.

SAMPLE DATE: 08/19/2020
SAMPLE TIME: 13:55

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS	
250 ml poly	1	HNO3	6020B/7470A	App IV + Hg	pH check
1 & 2.5 L 250 ml poly	1	HNO3	9315/9320	Radium 226/228	1
500 ml poly	1	None	300_ORGFM_28D	Fluoride	1

GENERAL INFORMATION	
WEATHER:	OVERCAST, 29°C
SHIPPED VIA:	FedEx
SHIPPED TO:	Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058
SAMPLER: ASnodgrass	OBSERVER: --

Product Name: Low-Flow System

Date: 2020-08-19 10:13:39

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood	Tubing Type	LDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-15	Tubing Length	39 ft
Latitude	32º 54' 8.95"		
Longitude	-83º -40' -57.63"		
Sonde SN	369323		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-15	Final Pumping Rate	90 mL/min
Well diameter	2.00 in	Total System Volume	0.6540735 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	332 in
Depth to Water	28.22 ft	Total Volume Pumped	3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	09:36:56	1200.03	20.91	6.85	210.84	3.53	30.42	4.08	185.92
Last 5	09:41:56	1500.02	21.04	6.69	211.19	2.74	30.79	4.08	185.88
Last 5	09:46:56	1799.91	21.10	6.60	211.99	2.05	31.17	4.01	185.38
Last 5	09:51:56	2099.91	21.27	6.55	213.17	1.45	31.42	3.87	183.61
Last 5	09:56:56	2399.91	21.08	6.51	214.46	1.48	31.72	3.77	185.10
Variance 0			0.06	-0.09	0.79			-0.07	-0.49
Variance 1			0.17	-0.05	1.19			-0.13	-1.77
Variance 2			-0.19	-0.04	1.29			-0.10	1.49

Notes

Start purging well @ 09:18, stop @ 09:57; Purge rate held constant @ 90 ml/min; Collect sample @ 10:05; pH pre sample collection is 6.47; Weather is sunny 23 degrees C

Grab Samples

ARGWC-15

Groundwater sample

PROJECT NAME: Plant Arkwright, Macon GA

FIELD SAMPLING REPORT

Project Number: 6122-20-1429

Wood
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST __2ND __3RD __4TH __5TH __6TH __7TH __8TH __9TH __10TH __11TH __12TH __Other _____
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: ARGWC-15 Matrix: Groundwater
WELL MATERIAL: ✓PVC __SS __ Other
SAMPLE METHOD: Low Flow

DUP./REP. OF: NA

Top of Screened Interval (btoc): 32.7 ft
Screen length: 10.0 ft
Pump Intake Set at (btoc) 38 ft.
or
Tubing Inlet Set at (btoc): _____
Arrival at: 08:30

WELL DIAMETER: 2.00-in
DEPTH TO WATER: 28.22 ft btoc GRAB (x) COMPOSITE ( )
TOTAL DEPTH: (43.86 ft btoc) 43.0 ft btoc
WATER COLUMN HEIGHT: 14.78 ft
PURGE VOLUME: 2.4 gal x 3 = 7.23 gal (27.4 L)
[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal) / L	DO (+/-0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/l record only) ✓	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm)[+/- 5%] ✓	TEMP (°C) record only	TURB. (NTU) [<5 NTU] ✓	Pump Rate ml/min. (& pump setting) (100ml/min)	New Water Level (Ft BTOC)
Initial: 09:22	0.1 / 0.4	6.53	182.10	8.02	219.04	22.47	65.5	90 (NA)	29.11
09:27	0.2 / 0.9	3.73	175.80	7.45	237.74	21.09	5.42	90 (NA)	29.62
09:32	0.3 / 1.3	4.04	182.90	7.10	216.90	20.90	7.75	90 (NA)	30.05
09:37	0.5 / 1.8	4.08	185.90	6.85	210.64	20.91	3.53	90 (NA)	30.42
09:42	0.6 / 2.2	4.08	185.90	6.69	211.19	21.04	2.74	90 (NA)	30.79
09:47	0.7 / 2.7	4.01	185.40	6.60	211.99	21.10	2.05	90 (NA)	31.17
09:52	0.8 / 3.1	3.87	183.60	6.55	213.17	21.27	7.45	90 (NA)	31.42
09:57	1.0 / 3.6	3.77	185.10	6.51	214.46	21.08	1.48	90 (NA)	31.72
	PARAMETERS ARE STABLE, WELL CAN BE SAMPLED								

NOTES:
1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
If well is purged dry, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
pH reading at sample time is 6.17

SAMPLE DATE: 08/19/2020
SAMPLE TIME: 10:05

AS 8/19/20

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020B/7470A	App IV + Hg
1.8 L 250-ml poly	1	HNO3	9315/9320	Radium 226/228
500 ml poly	1	None	300_ORGFM_28D	Fluoride

pH check

GENERAL INFORMATION			
WEATHER:	SUNNY, 23°C		
SHIPPED VIA:	FedEx		
SHIPPED TO:	Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058		
SAMPLER:	A. SHORE PE'T.S	OBSERVER:	—

Product Name: Low-Flow System

Date: 2020-08-19 12:11:47

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood	Tubing Type	LDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-16	Tubing Length	32 ft
Latitude	32º 54' 8.95"		
Longitude	-83º -40' -57.63"		
Sonde SN	369323		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	29.5 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-16	Final Pumping Rate	220 mL/min
Well diameter	2.00 in	Total System Volume	0.6228296 L
Well Total Depth	34.52 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.2 in
Depth to Water	20.12 ft	Total Volume Pumped	7.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 20
Last 5	11:39:07	900.02	20.50	5.32	540.99	0.90	20.14	0.99	241.55
Last 5	11:44:08	1200.40	20.31	5.27	539.22	0.46	20.14	0.78	239.15
Last 5	11:49:08	1500.38	20.28	5.26	539.12	0.32	20.14	0.71	236.07
Last 5	11:54:08	1800.37	20.21	5.25	538.76	0.37	20.14	0.69	233.66
Last 5	11:59:08	2100.38	20.16	5.25	538.94	0.20	20.14	0.68	231.19
Variance 0			-0.03	-0.01	-0.10			-0.07	-3.08
Variance 1			-0.08	-0.01	-0.36			-0.02	-2.41
Variance 2			-0.04	-0.00	0.19			-0.01	-2.47

Notes

Start purging well @ 11:25, stop @ 11:59; Purge rate held steady @ 220 ml/min; Collect sample @12:05; pH @ sample collection time is 5.24; Weather is partly cloudy 27 degrees C

Grab Samples

ARGWC-16

Groundwater sample

PROJECT NAME: Plant Arkwright, Macon GA

FIELD SAMPLING REPORT

Project Number: 6122-20-1429

Wood
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST __2ND __3RD __4TH __5TH __6TH __7TH __8TH __9TH __10TH __11TH __12TH __Other _____
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: ALGWC-16 Matrix: Groundwater
WELL MATERIAL: ✓PVC __SS __ Other
SAMPLE METHOD: Low Flow.

DUP./REP. OF: NA

Top of Screened interval (btoc): 24.62
Screen length: 10.0 Ft
Pump Intake Set at (btoc): 29.5 ft
or
Tubing Inlet Set at (btoc): _____
Arrival at: 10:44

WELL DIAMETER: 2.00-in
DEPTH TO WATER: 20.12 Ft btoc GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 34.52 Ft btoc
WATER COLUMN HEIGHT: 14.4 Ft
PURGE VOLUME: 2.35 gal x 3 = 7 gal (26.7 L)
[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal) / L	✓ DO (+/-0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/l record only)	ORP (mV) record only	✓ pH (+/- 0.1 pH units)	✓ SPEC. COND. (µs/cm)(+/- 5%)	TEMP (°C) record only	✓ TURB. (NTU) (<5 NTU)	Pump Rate ml/min. (& pump setting) (100ml/min)	New Water Level (Ft BTOC)
Initial: 11:29	0.2 / 6.8	1.58	244.00	5.84	540.51	21.34	2.19	288 (NA)	20.13
11:34	0.5 / 1.9	1.32	243.10	5.41	546.05	20.75	1.39	220 (NA)	20.13
11:39	0.8 / 3.0	0.99	241.60	5.32	540.99	20.50	0.90	215 (NA)	20.14
11:44	1.1 / 4.1	0.78	239.10	5.27	539.22	20.31	0.46	220 (NA)	20.14
11:49	1.4 / 5.2	0.71	236.10	5.26	539.12	20.28	0.32	220 (NA)	20.14
11:54	1.7 / 6.3	0.69	233.70	5.25	538.76	20.21	0.37	220 (NA)	20.14
11:59	1.9 / 7.4	0.68	238.94	5.25	538.94	20.16	0.20	220 (NA)	20.14
			120						
	PARAMETERS ARE STABLE, WELL CAN BE SAMPLED.								

A.S. 8/19/20

NOTES:
1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
If well is purged dry, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
pH reading at sample collection is 5.24
Well cover lock is rusted and needs to be replaced.

SAMPLE DATE: 08/19/2020
SAMPLE TIME: 12:05

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS	pH check
250 ml poly	1	HNO3	6020B/7470A	App IV + Hg	I
1 L 250-ml poly	1	HNO3	9315/9320	Radium 226/228	I
500 ml poly	1	None	300_ORGFM_28D	Fluoride	

A.S. 8/19/20

GENERAL INFORMATION			
WEATHER:	Sunny, 27°C		
SHIPPED VIA:	FedEx		
SHIPPED TO:	Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058		
SAMPLER:	A. Shorbotts	OBSERVER:	—

Product Name: Low-Flow System

Date: 2020-08-18 15:14:41

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood	Tubing Type	LDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-17	Tubing Length	31 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369323		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	29.50 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-17	Final Pumping Rate	210 mL/min
Well diameter	2.00 in	Total System Volume	0.6183661 L
Well Total Depth	34.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.6 in
Depth to Water	21.66 ft	Total Volume Pumped	9.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:20:41	1200.22	20.65	5.12	221.49	9.50	22.39	0.60	224.97
Last 5	14:25:41	1500.21	20.59	5.10	223.51	4.84	22.26	0.46	220.51
Last 5	14:30:41	1800.21	20.90	5.09	223.95	3.80	22.25	0.39	219.04
Last 5	14:35:41	2100.22	20.59	5.07	224.11	2.46	22.25	0.34	218.68
Last 5	14:40:41	2400.22	21.02	5.08	224.39	2.24	22.24	0.32	215.52
Variance 0			0.31	-0.00	0.44			-0.07	-1.47
Variance 1			-0.32	-0.03	0.15			-0.05	-0.36
Variance 2			0.43	0.01	0.28			-0.02	-3.17

Notes

Start purging well @ 14:00, stop @ 14;40; Purge rate lowered from initial rate of 325 ml/min to 210 ml/min @ 14:20; Collect sample @ 14:45, pH is 5.07; Weather is sunny 33 degrees C

Grab Samples

ARGWC-17

Groundwater sample

PROJECT NAME: Plant Arkwright, Macon GA

FIELD SAMPLING REPORT

Project Number: 6122-20-1429

Wood
1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: __1ST __2ND __3RD __4TH __5TH __6TH __7TH __8TH__ 9TH __10TH __11TH __12TH __Other _____
MONITORING WELL TYPE: __Standard __ Compliance __Background __Extraction
WELL ID: AP-GWC-17 Matrix: Groundwater
WELL MATERIAL: __ PVC __SS __ Other
SAMPLE METHOD: Low Flow

DUP./REP. OF: NA

Top of Screened Interval (btoc): 26.50 ft
Screen length: 10.0 ft
Pump Intake Set at (btoc) 29.50 ft
or
Tubing Inlet Set at (btoc): _____
Arrival at: 13:39

WELL DIAMETER: 2.00-in
DEPTH TO WATER: 21.66 ft btoc GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 34.50 ft btoc
WATER COLUMN HEIGHT: 12.84 ft
PURGE VOLUME: 2.09 gal x 3 = 6.28 gal (23.8L)
[0.04 x water column height (ft) x 3 (well volumes) for 1" wells]
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)/L	DO (+/-0.2 mg/l or 10% for DO > 0.5 mg/L for DO < 0.5 mg/l record only) ✓	ORP (mV) record only	pH (+/- 0.1 pH units) ✓	SPEC. COND. (µs/cm)[+/- 5%] ✓	TEMP (°C) record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100ml/min)	New Water Level (Ft BTOC))
Initial: 14:05	16.8	2.09	168.00	5.93	269.61	21.27	9.61	150 ( )	22.36
14:10	12.4	1.67	208.00	5.41	228.85	20.46	43.7	325	22.45
14:15	14.0	1.03	225.20	5.21	219.07	20.28	15.0	325	22.46
14:20	15.3	0.60	225.00	5.12	221.49	20.65	9.50	260	22.39
14:25	16.4	0.46	220.50	5.10	223.51	20.59	4.84	210	22.26
14:30	17.4	0.39	219.00	5.09	223.95	20.90	3.86	210	22.24
14:35	18.5	0.34	218.70	5.07	224.11	20.59	2.46	210	22.25
14:40	19.5	0.32	215.60	5.08	224.39	21.62	2.24	210	22.24
	PARAMETERS ARE STABLE, WELL CAN BE SAMPLED								

AS 8/18/20

NOTES:
1. Stabilization of water column will be considered achieved when 3 consecutive water levels measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen
If well is purged dry, allow to recharge and sample within 24 hrs. Turbidity < 5 NTUs
pH at sample collection is 5.07

SAMPLE DATE: 08/18/2020
SAMPLE TIME: 14:45

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 ml poly	1	HNO3	6020B/7470A	metals App IV + Hg
1.8L 250 ml poly	1	HNO3	9315/9320	Radium 226/228
AS 8/18/20 500 ml poly	1	None	300_ORGFM_28D	Fluoride

DSI Check
1
1

GENERAL INFORMATION			
WEATHER:	SUNNY, 33°C		
SHIPPED VIA:	FedEx		
SHIPPED TO:	Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive RIDC Park, Pittsburgh, PA 15238, Ph.: 412-963-7058		
SAMPLER:	A. SHOREDITS	OBSERVER:	NA

Product Name: Low-Flow System

Date: 2020-08-18 13:03:49

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micropurge dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	.25 in
Site Name	ARGWA-12	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	407447		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-12	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8178456 L
Well Total Depth	35.2 ft	Calculated Sample Rate	300 sec
Screen Length	12 ft	Stabilization Drawdown	0.02 in
Depth to Water	15.1 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:39:02	900.38	21.13	6.55	189.97	6.79	15.47	2.94	118.38
Last 5	12:44:02	1200.38	21.09	6.53	189.48	5.23	15.48	2.92	115.30
Last 5	12:49:02	1500.38	21.24	6.49	189.25	4.93	15.48	2.90	113.38
Last 5	12:54:02	1800.39	21.29	6.49	188.48	3.51	15.49	2.87	112.30
Last 5	12:59:02	2100.39	21.25	6.48	188.26	3.85	15.49	2.87	112.79
Variance 0			0.15	-0.03	-0.23			-0.02	-1.92
Variance 1			0.05	-0.01	-0.77			-0.03	-1.09
Variance 2			-0.04	-0.01	-0.22			-0.00	0.49

Notes

ARGWA-12 sample time 1300.

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 14:50:59

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micropurge dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	.25 in
Site Name	ARGWA-13	Tubing Length	43.3 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	407447		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.3 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-13	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8979633 L
Well Total Depth	43.31 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	23.34 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:27:20	900.03	19.68	6.20	1147.97	1.92	23.79	1.39	101.39
Last 5	14:32:20	1200.03	19.63	6.19	1150.71	1.39	23.79	1.25	98.01
Last 5	14:37:20	1500.02	19.69	6.18	1145.85	1.58	23.79	1.20	96.51
Last 5	14:42:20	1800.02	19.69	6.16	1142.28	1.32	23.79	1.16	95.28
Last 5	14:47:20	2100.02	19.61	6.15	1136.43	1.01	23.79	1.12	94.29
Variance 0			0.06	-0.01	-4.86			-0.06	-1.49
Variance 1			-0.00	-0.02	-3.57			-0.04	-1.23
Variance 2			-0.07	-0.00	-5.85			-0.04	-0.99

Notes

ARGWA-13 sample time 1450.

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 13:19:42

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWA-3	Tubing Length	40.5 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	459710		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	35.5 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-3	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6607687 L
Well Total Depth	40.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	34.66 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:58:03	1800.03	19.44	6.40	74.91	7.46	34.82	6.83	87.78
Last 5	13:03:03	2099.88	19.40	6.42	74.39	6.51	34.82	6.83	87.12
Last 5	13:08:03	2399.88	19.50	6.43	74.70	5.67	34.82	6.84	87.28
Last 5	13:13:03	2699.97	19.56	6.46	74.51	4.86	34.82	6.85	86.59
Last 5	13:18:03	2999.91	19.50	6.47	74.21	4.52	34.82	6.87	86.81
Variance 0			0.11	0.02	0.31			0.01	0.17
Variance 1			0.05	0.03	-0.20			0.01	-0.70
Variance 2			-0.05	0.01	-0.30			0.02	0.22

Notes

Sample time=1320

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 11:35:20

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWA-5	Tubing Length	30.00 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	459710		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	25.00 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6139027 L
Well Total Depth	30.00 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	23.03 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:11:57	899.88	17.79	6.08	80.72	1.78	23.15	6.92	96.22
Last 5	11:16:57	1199.88	17.92	6.08	82.27	2.33	23.15	6.62	92.38
Last 5	11:21:57	1499.87	17.74	6.09	82.27	1.72	23.15	6.48	88.89
Last 5	11:26:57	1799.88	17.77	6.16	80.48	1.19	23.15	6.46	87.97
Last 5	11:31:57	2099.88	17.73	6.18	81.33	0.77	23.15	6.36	86.39
Variance 0			-0.18	0.00	0.01			-0.15	-3.49
Variance 1			0.03	0.07	-1.80			-0.02	-0.92
Variance 2			-0.04	0.02	0.85			-0.11	-1.58

Notes

Sample time= 1135

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 15:25:00

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-7	Tubing Length	50.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	459710		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	45.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.7040638 L
Well Total Depth	50.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	22.18 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:02:12	1201.03	19.48	6.55	143.61	2.43	22.43	3.65	93.21
Last 5	15:07:12	1501.03	19.36	6.62	144.43	1.31	22.43	3.65	92.80
Last 5	15:12:12	1801.03	19.36	6.64	143.78	0.96	22.43	3.62	91.74
Last 5	15:17:12	2101.02	19.29	6.67	143.46	0.57	22.43	3.64	94.47
Last 5	15:22:12	2401.49	19.24	6.70	143.93	0.51	22.43	3.65	89.26
Variance 0			0.00	0.03	-0.65			-0.02	-1.06
Variance 1			-0.08	0.03	-0.32			0.02	2.73
Variance 2			-0.05	0.03	0.47			0.01	-5.21

Notes

Sample time=1525

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-20 10:34:42

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-8	Tubing Length	43.23 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	407447		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	38.23 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-8	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6729538 L
Well Total Depth	43.22 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	26.15 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:11:45	1500.03	20.29	6.45	451.83	8.48	26.63	0.12	98.71
Last 5	10:16:45	1800.03	20.38	6.66	451.37	7.85	26.63	0.12	90.86
Last 5	10:21:45	2100.03	20.26	6.36	450.06	6.82	26.63	0.12	99.72
Last 5	10:26:45	2400.03	20.31	6.33	452.06	5.64	26.63	0.11	97.98
Last 5	10:31:45	2700.03	20.30	6.34	451.67	4.06	26.63	0.12	97.12
Variance 0			-0.12	-0.30	-1.31			-0.00	8.87
Variance 1			0.05	-0.03	2.00			-0.00	-1.74
Variance 2			-0.00	0.02	-0.39			0.00	-0.87

Notes

Sample time=1035

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 14:24:49

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-9	Tubing Length	38.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	459710		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	33.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6505027 L
Well Total Depth	38.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	20.78 ft	Total Volume Pumped	35 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:03:02	4499.88	19.38	7.16	70.87	8.79	21.13	6.39	74.47
Last 5	14:08:03	4800.73	19.37	7.18	70.86	7.67	21.13	6.39	73.99
Last 5	14:13:03	5100.73	19.44	7.20	70.81	6.59	21.13	6.36	75.07
Last 5	14:18:03	5400.73	19.37	7.18	70.91	5.21	21.13	6.35	73.54
Last 5	14:23:03	5700.73	19.42	7.21	70.90	4.62	21.13	6.35	72.85
Variance 0			0.07	0.02	-0.05			-0.03	1.08
Variance 1			-0.07	-0.02	0.11			-0.01	-1.54
Variance 2			0.04	0.02	-0.01			0.00	-0.68

Notes

Sample time = 1425

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 11:36:18

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-10	Tubing Length	38.35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	459710		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	33.35 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-10	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6511722 L
Well Total Depth	38.35 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	21.27 ft	Total Volume Pumped	33 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:11:20	8700.58	19.32	7.04	91.75	6.18	21.63	4.34	71.18
Last 5	11:16:20	9000.59	19.42	7.05	92.13	5.84	21.63	4.39	70.59
Last 5	11:21:20	9300.58	19.59	7.07	91.64	5.11	21.63	4.39	71.20
Last 5	11:26:20	9600.58	19.32	7.08	91.40	5.10	21.73	4.40	70.66
Last 5	11:31:20	9900.58	19.32	7.06	91.17	4.89	21.63	4.34	70.41
Variance 0			0.17	0.01	-0.49			0.00	0.61
Variance 1			-0.27	0.01	-0.24			0.01	-0.54
Variance 2			0.01	-0.02	-0.23			-0.06	-0.25

Notes

Sample time =1135

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-20 17:05:38

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright AP3 CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-18	Tubing Length	50.65 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	407447		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	45.65 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-18	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.7060724 L
Well Total Depth	50.65 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	28.28 ft	Total Volume Pumped	28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	16:41:01	19208.09	23.98	6.44	592.62	26.00	28.62	0.39	268.24
Last 5	16:46:01	19508.09	23.83	6.44	592.08	26.70	28.62	0.38	256.28
Last 5	16:51:01	19808.09	23.70	6.44	593.07	26.10	28.62	0.38	242.51
Last 5	16:56:01	20108.09	23.76	6.44	592.47	27.10	28.62	0.38	228.05
Last 5	17:01:01	20408.09	23.79	6.43	591.96	26.30	2862.00	0.38	214.76
Variance 0			-0.13	-0.00	0.98			-0.00	-13.76
Variance 1			0.06	-0.00	-0.60			0.00	-14.46
Variance 2			0.03	-0.00	-0.51			-0.00	-13.29

Notes

Sample time =1705.

Grab Samples

Groundwater Monitoring Well Integrity Form

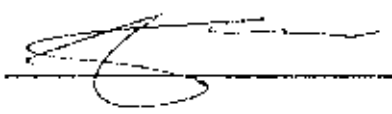
Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAMW-3
Date: 05/17/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

Northern bollard has been driven into and has slight damage near base (bollard is still secure) — No action needed

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAMW-4
Date: 8-17-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

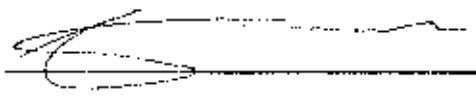
Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAMW-6
Date: 08/17/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)			
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: AA GWP-3
Date: 8-17-20

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)			
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: AR GW-5
Date: 8-17-20

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)			
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

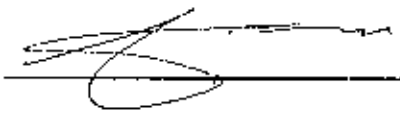
Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: AqGWC-7
Date: 08/17/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?			✓
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:	✓		

Southern bollard has fallen over; northern bollard is loose & skew; eastern bollard is loose.

Signature and Seal of PE/PG responsible for inspection



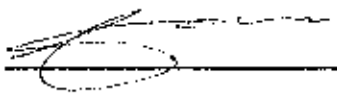
Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAWC-8
Date: 08/17/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?			
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)			
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:	✓		

Southern and eastern bollards are loose/wobble.

Signature and Seal of PE/PG responsible for inspection



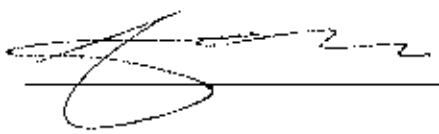
Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-9
Date: 08/17/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?			✓
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?			✓
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?		✓	
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:
Fence line runs across half of well pad, part of pad beyond fence is covered in gravel and vegetation, can't see that half

Signature and Seal of PE/PG responsible for inspection

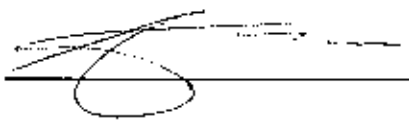


Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARKWC-10
Date: 08/17/2020

		yes	no	n/a	
1	Location/Identification				
a	Is the well visible and accessible?	✓			
b	Is the well properly identified with the correct well ID?	✓		✓	
c	Is the well in a high traffic area and does the well require protection from traffic?	✓			
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓			
2	Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓			
b	Is the casing free of degradation or deterioration?	✓			
c	Does the casing have a functioning weep hole?		✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓			
e	Is the well locked and is the lock in good condition?	✓			
3	Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓			
b	Is the well pad sloped away from the protective casing?	✓			
c	Is the well pad in complete contact with the protective casing?	✓			
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓			
e	Is the pad surface clean (not covered with sediment or debris)?	✓			
4	Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓			
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓			
c	Is the well properly vented for equilibration of air pressure?	✗	✗		Yes A.L. 08/17/20
d	Is the survey point clearly marked on the inner casing?	✓			
e	Is the depth of the well consistent with the original well log?			N/A	
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓			
5	Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			N/A	
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A	
c	Does the well require redevelopment (low flow, turbid)?			N/A	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓			
7	Corrective actions as needed, by date:				

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: AAGWA-12
Date: 8-17-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number: N.A.
Well ID: ARGWA-13
Date: 8/17/20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: AR GW A-14
Date: 8-17-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)			
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-15
Date: 8-17-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)			
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-16
Date: 8-17-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceplable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to fack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGW C-17
Date: 8-17-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

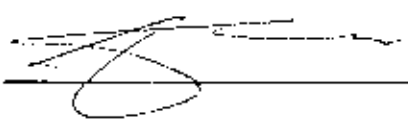
Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARMW-18
Date: 08/17/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection



Date: 8/18/20
Time: 0900
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: _____
Pine Handset ID: 407447
Battery Voltage %: 60

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No ✓ Date: ____ Time:	
Current Air Temperature °C (meter reading):		23.4
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	750.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	7.97
DO concentration after Calibration (mg/L):		
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	95%
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0534

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 0GE438 5/21	1.413
Temperature (°C)		24.9
Reading before Calibration (mS/cm)		1.417
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.9975

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 9GK721 11/21	7.47
pH 7.0 value after calibration:	25.5°C	7.00
pH 7.0 mV (**range is -50 to +50 mV**):		-28.0
pH 10 value before calibration:	Lot 9GL648 12/21	9.37
pH 10 value after calibration:	25.3°C	10.00
pH 10 mV (**range is -130 to -230 mV**):		-139.9
pH 4.0 value before calibration:	Lot 0GD046 4/22	5.79
pH 4.0 value after calibration:	25.2°C	4.8
pH 4.0 mV (**range is 130 to 230 mV**):		71.8

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 0GD520 1/21	25.1
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 = mV (T is Temperature °C)	229
Reading before calibration (mV):		198.2
Reading after calibration (mV):		229

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY **Note: Lens wiper should be parked 180 degrees from the optics.**			
20 NTU Turbidity Standard Lot A9254, 12/20	Before Cal:	After Cal:	20.2
100 NTU Turbidity Standard Lot A9213, 11/20	Before Cal:	After Cal:	100
800 NTU Turbidity Standard Lot A9241, 12/20	Before Cal:	After Cal:	796
10 NTU Turbidity Check STD Lot A9213, 11/20	Before Cal:	After Cal:	10.1
<0.1 NTU Turbidity Check STD Lot A0037, 2/22	Before Cal:	After Cal:	0.19
CALIBRATION SUCCESSFUL?			

Hach 2100 Q ID: 031426

Date: 8/19/20
Time: 0825
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: _____
Pine Handset ID: 407447
Battery Voltage %: 53

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No ✓ Date: ____ Time: ____	
Current Air Temperature °C (meter reading):		25.4
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	749.96
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.71
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	95.4
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0492

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot OGEH38 5/21	1.413
Temperature (°C)		27.6
Reading before Calibration (mS/cm)		1.413
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.9999

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 9GK721 11/21	7.49
pH 7.0 value after calibration:	27.5°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-28.7
pH 10 value before calibration:	Lot 9GL648 12/21	9.40
pH 10 value after calibration:	27.1°C	10.00
pH 10 mV (range is -130 to -230 mV):		-141.0
pH 4.0 value before calibration:	Lot OGD046 4/22	5.12
pH 4.0 value after calibration:	26.9°C	4.8
pH 4.0 mV (range is 130 to 230 mV):		74.9

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot OGD520 1/21	26.8
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	227
Reading before calibration (mV):		193.2
Reading after calibration (mV):		227

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard Lot A9254, 12/20	Before Cal:	After Cal:	19.9
100 NTU Turbidity Standard Lot A9213, 11/20	Before Cal:	After Cal:	100
800 NTU Turbidity Standard Lot A9241, 12/20	Before Cal:	After Cal:	800
10 NTU Turbidity Check STD Lot A9213, 11/20	Before Cal:	After Cal:	10.2
<0.1 NTU Turbidity Check STD Lot A0037, 2/22	Before Cal:	After Cal:	0.24
CALIBRATION SUCCESSFUL?			

Hach 2100 Q ID: 031426

Date: 8/20/20
Time: 0815
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: 369555
Pine Handset ID: ~~369956~~
Battery Voltage %: 50

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes_____ No_ Date:____ Time:____	
Current Air Temperature °C (meter reading):		21.8
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	750.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		8.46
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	97.7
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0238

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 0GE438 5/21	1.413
Temperature (°C)		25.1
Reading before Calibration (mS/cm)		1.409
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1.0036

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 9GK721 11/21	7.82
pH 7.0 value after calibration:	24.6°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-48.5
pH 10 value before calibration:	Lot 9GL648 12/21	10.69
pH 10 value after calibration:	24.6°C	10.00
pH 10 mV (range is -130 to -230 mV):		-218.5
pH 4.0 value before calibration:	Lot 0GD046 4/22	4.94
pH 4.0 value after calibration:	24.6°C	4.00
pH 4.0 mV (range is 130 to 230 mV):		122.6

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 0GD520 1/21	24.7
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 mV (T is Temperature °C)	229
Reading before calibration (mV):		189.4
Reading after calibration (mV):		229

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard Lot A9254, 12/20	Before Cal:	After Cal:	20.1
100 NTU Turbidity Standard Lot A9213, 11/20	Before Cal:	After Cal:	100
800 NTU Turbidity Standard Lot A9241, 12/20	Before Cal:	After Cal:	808
10 NTU Turbidity Check STD Lot A9213, 11/20	Before Cal:	After Cal:	9.92
<0.1 NTU Turbidity Check STD Lot A0037, 2/22	Before Cal:	After Cal:	0.26
CALIBRATION SUCCESSFUL?			

Hach 2100Q ID: 031426

Date: 8/21/20
Time: ~~0815~~ 0815
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: _____
Pine Handset ID: 369555
Battery Voltage %: 50

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes____ No_✓_ Date: ____ Time:____	
Current Air Temperature °C (meter reading):		23.5
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	749.6
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		8.16
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	97.5
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot OGE438 1.413	24.0
Temperature (°C)	5/21	24.0
Reading before Calibration (mS/cm)		1379
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1.0249

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 9GK721 11/21	7.78
pH 7.0 value after calibration:	24.1°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-46.2
pH 10 value before calibration:	Lot 9GL648 12/21	10.62
pH 10 value after calibration:	24.2	10.00
pH 10 mV (range is -130 to -230 mV):		-215.5
pH 4.0 value before calibration:	Lot OGD046 4/22	4.93
pH 4.0 value after calibration:	24.0	4.00
pH 4.0 mV (range is 130 to 230 mV):		123.2

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot OGD520 1/21	24.0
Theoretical Calibration standard (mV)	0.231-0.0013(25-T) x 1000 mV (T is Temperature °C)	230
Reading before calibration (mV):		191.7
Reading after calibration (mV):		230

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard Lot A9254, 12/20	Before Cal:	After Cal:	20.2
100 NTU Turbidity Standard Lot A9213, 11/20	Before Cal:	After Cal:	99.8
800 NTU Turbidity Standard Lot A9241, 12/20	Before Cal:	After Cal:	792
10 NTU Turbidity Check STD Lot A9213, 11/20	Before Cal:	After Cal:	10.1
<0.1 NTU Turbidity Check STD Lot A0037, 2/22	Before Cal:	After Cal:	0.27
CALIBRATION SUCCESSFUL?			

Hach 2100 Q ID: 031426

Date: 08/18/20
Time: 08:50
Prepared By: A. SHOREPITS
Checked By: _____

Wood.
Project No. 6122201429

SMARTROLL Pod
Pine Sonde ID: 25467
Pine Handset ID: 030616
Battery Voltage %: 90
Hach 2100Q S/N 12110C021737
PINE # 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes X No ____ Date: 8/18 Time: 10:35	
Current Air Temperature °C (meter reading):		
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		29.89 in Hg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	759.206 mm Hg (-(14.54/100 x 2.54))
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		= 10.6 => 748.606 mm Hg
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	86.7%
DO concentration after Calibration (mg/L):		99.9% 7.76 mg/L
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # OAE438 Exp. 05/21	1.413
Temperature (°C)		22.90
Reading before Calibration (mS/cm)		1.36
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot# 9GK721 Exp. 11/21	7.56 A.S. 27 08/18/20
pH 7.0 value after calibration:		7.00
pH 7.0 mV (**range is -50 to +50 mV**):		-42.7 @23.3°C
pH 10 value before calibration:	Lot# 99L648 Exp. 12/21	10.34 A.S. 08/18/20
pH 10 value after calibration:		10.00
pH 10 mV (**range is -130 to -230 mV**):		-206.3
pH 4.0 value before calibration:	Lot# 09D046 Exp. 04/22	4.80 @23.5°C
pH 4.0 value after calibration:		4.00
pH 4.0 mV (**range is 130 to 230 mV**):		182.1 A.S. 08/18/20

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std 240.0mV)		
Calibration Temperature (°C):	Lot # 06D520 Exp. 01/21	23.7
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	—
Reading before calibration (mV):		242.7
Reading after calibration (mV):		240.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.					
20 NTU Turbidity Standard	Lot# A0113	Exp 07/21	Before Cal: 20.3	After Cal:	20.9
100 NTU Turbidity Standard	Lot# A9121	Exp 08/20	Before Cal: 98.3	After Cal:	98.1
800 NTU Turbidity Standard	Lot# A0111	Exp 07/21	Before Cal: 853	After Cal:	862
10 NTU Turbidity Check STD	Lot# A9213	Exp. 11/20	Before Cal: 10.3	After Cal:	9.54
____ NTU Turbidity Check STD			Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?					YES

Date: 08/19/20
Time: 06:30
Prepared By: A. SHOREDITS
Checked By: —

Wood.
Project No. 6122201429

SMARTROLL
Pine Sonde ID: 25467
Pine Handset ID: 030616
Battery Voltage %: 90
Hach 2100Q S/N 12110C021737
PINE # 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE	
Was DO membrane changed?	Yes_____ No_X_ Date: Time:_____		
Current Air Temperature °C (meter reading):			
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		29.85 in Hg	
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg		
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:			
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.06	105.6%
DO concentration after Calibration (mg/L):		8.63	99.9%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery		
DO Charge (DO ch):	Acceptable Range is 25 to 75		
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants		

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot# 09E438 Exp. 05/21	1.413
Temperature (°C)		21.75
Reading before Calibration (mS/cm)		1.410
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot# 9GK721 Exp. 11/21	7.05	21.80°C
pH 7.0 value after calibration:		7.00	
pH 7.0 mV (range is -50 to +50 mV):		-36.8	
pH 10 value before calibration:	Lot# 9GL648 Exp. 12/21	9.80	21.80°C
pH 10 value after calibration:		10.00	
pH 10 mV (range is -130 to -230 mV):		-205.8	
pH 4.0 value before calibration:	Lot# 09GD046 Exp. 02/22	4.10	21.85°C
pH 4.0 value after calibration:		4.00	
pH 4.0 mV (range is 130 to 230 mV):		132.2	

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std 240.0mV)		
Calibration Temperature (°C):	Lot # 0GD520 Exp. 01/21	21.80
Theoretical Calibration standard (mV)	0.231-0.0013(25-T) x 1000 = mV (T is Temperature °C)	—
Reading before calibration (mV):		243.2
Reading after calibration (mV):		240.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.						
20 NTU Turbidity Standard	Lot# A9113	Exp 07/21	Before Cal:	20.3	After Cal:	20.5
100 NTU Turbidity Standard	Lot# A9121	Exp 08/20	Before Cal:	100	After Cal:	101
800 NTU Turbidity Standard	Lot # A9111	Exp. 07/21	Before Cal:	789	After Cal:	798
10 NTU Turbidity Check STD	Lot # A9213	Exp. 11/20	Before Cal:	9.84	After Cal:	9.38
_____ NTU Turbidity Check STD			Before Cal:		After Cal:	
CALIBRATION SUCCESSFUL?						Yes

Date: 08/20/20
Time: 08:05
Prepared By: A. SHOREDITS
Checked By: —

Wood.
Project No. 6122201429

SMARTROLL
iPod
Pine Sonde ID: 28467
Pine Handset ID: 030616
Battery Voltage %: 100
Hach 2100Q S/N 12110C021737
PINE # 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ___ No X Date: ___ Time: ___	
Current Air Temperature °C (meter reading):		21.31
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		29.89 mm Hg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.71 99.5%
DO concentration after Calibration (mg/L):		8.73 100.0%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY	Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]	
Calibration standard used (mS/cm)	Lot # 09F438 Exp. 05/21	1.413
Temperature (°C)		22.11
Reading before Calibration (mS/cm)		1.420
Reading AFTER Calibration (mS/cm)		1.418
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot # 94K721 Exp. 11/21	6.89	22.15°C
pH 7.0 value after calibration:		7.00	
pH 7.0 mV (range is -50 to +50 mV):		-36.1	
pH 10 value before calibration:	Lot # 94L648 Exp. 12/21	9.98	22.2°C
pH 10 value after calibration:		10.00	
pH 10 mV (range is -130 to -230 mV):		-206.0	
pH 4.0 value before calibration:	Lot # 09D046 Exp. 04/22	4.03	22.3°C
pH 4.0 value after calibration:		4.00	
pH 4.0 mV (range is 130 to 230 mV):		181.6	

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std. 240.0 mV)		
Calibration Temperature (°C):	Lot # 09D520 Exp. 01/21	22.06
Theoretical Calibration standard (mV)	0.231 -0.0013(25-T) x 1000 = mV (T is Temperature °C)	—
Reading before calibration (mV):		239.4
Reading after calibration (mV):		240.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.					
20 NTU Turbidity Standard	Lot # A0113	Exp 07/21	Before Cal: 19.0	After Cal:	18.8
100 NTU Turbidity Standard	Lot # A9121	Exp 08/20	Before Cal: 97.8	After Cal:	96.1
800 NTU Turbidity Standard	Lot # A0111	Exp. 07/21	Before Cal: 789	After Cal:	796
10 NTU Turbidity Check STD	Lot # A9213	Exp. 11/20	Before Cal: 9.15	After Cal:	10.4
___ NTU Turbidity Check STD			Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?					YES

Date: 08/21/2020
Time: 06:00
Prepared By: A. SHOREDITS
Checked By: —

Wood.
Project No. 6122201429

iPod
SMARTROLL
Pine Sonde ID: 25467
Pine Handset ID: 030616
Battery Voltage %: 100
Hach 2100Q S/N 12110C021737
PINE# 022853

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE	
Was DO membrane changed?	Yes__ No X Date:____ Time:____		
Current Air Temperature °C (meter reading):			
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		29.88 in Hg	
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg		
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:			
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.63	99.5%
DO concentration after Calibration (mg/L):		8.63	100.0%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	—	
DO Charge (DO ch):	Acceptable Range is 25 to 75	—	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	—	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot# 0GE438 Exp 05/21	1.413
Temperature (°C)		21.10
Reading before Calibration (mS/cm)		1.420
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot# 94K721 Exp 11/21	6.99	21.60°C
pH 7.0 value after calibration:		7.00	
pH 7.0 mV **(range is -50 to +50 mV)**:		-36.9	
pH 10 value before calibration:	Lot # 9GL648 Exp 12/21	—	21.27°C
pH 10 value after calibration:		10.00	
pH 10 mV **(range is -130 to -230 mV)**:		-207.2	
pH 4.0 value before calibration:	Lot # 0GD046 Exp 04/22	—	21.60°C
pH 4.0 value after calibration:		4.00	
pH 4.0 mV **(range is 130 to 230 mV)**:		128.7	

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std 240.0 mV)		
Calibration Temperature (°C):	Lot# 09D520 Exp 01/21	22.60
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 = mV (T is Temperature °C)	—
Reading before calibration (mV):		241.0
Reading after calibration (mV):		240.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.						
20 NTU Turbidity Standard	Lot# A0113	Exp 09/21	Before Cal:	19.5	After Cal:	20.0
100 NTU Turbidity Standard	Lot# A9121	Exp 08/20	Before Cal:	98.6	After Cal:	99.0
800 NTU Turbidity Standard	Lot# A0111	Exp 09/21	Before Cal:	791	After Cal:	800
10 NTU Turbidity Check STD	Lot# A9213	Exp 11/20	Before Cal:	9.77	After Cal:	9.99
____ NTU Turbidity Check STD			Before Cal:		After Cal:	
CALIBRATION SUCCESSFUL?						YES

Date: 8-18-20
Time: 935
Prepared By: Evan Guiller
Checked By:

Wood.
Project No. 6122201429

Pine Sonde ID: 30666
Pine Handset ID: 30618
Battery Voltage %: 102

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No ✓ Date: Time:	
Current Air Temperature °C (meter reading):		23.11
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	750.9
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.61
DO concentration after Calibration (mg/L):		7.88
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	--
DO Charge (DO ch):	Acceptable Range is 25 to 75	--
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	--

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		23.1
Reading before Calibration (mS/cm)		1.526
Reading AFTER Calibration (mS/cm)		1.279
Conductivity Cell Constant (unitless):		--

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.56
pH 7.0 value after calibration:		7.0
pH 7.0 mV **(range is -50 to +50 mV)**:		-33.1
pH 10 value before calibration:		10.58
pH 10 value after calibration:		10.0
pH 10 mV **(range is -130 to -230 mV)**:		-212.8
pH 4.0 value before calibration:		4.88
pH 4.0 value after calibration:		4.0
pH 4.0 mV **(range is 130 to 230 mV)**:		125.6

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		23.8
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 = mV (T is Temperature °C)	240.0
Reading before calibration (mV):		198.9
Reading after calibration (mV):		231.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
10 NTU Turbidity Standard	Before Cal:	9.19	After Cal:	9.53
20 NTU Turbidity Standard	Before Cal:	20.4	After Cal:	19.7
100 NTU Turbidity Standard	Before Cal:	100	After Cal:	99.8
800 NTU Turbidity Check STD	Before Cal:	796	After Cal:	796
10 NTU Turbidity Check STD	Before Cal:	9.50	After Cal:	9.69
CALIBRATION SUCCESSFUL?				YES

Date: 8-19-20
Time: [illegible]
Prepared By: EVER GUILLEN
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: 30666
Pine Handset ID: 30618
Battery Voltage %: _____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes _ No ✓ Date: ____ Time: ____	
Current Air Temperature °C (meter reading):		23.21
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	750.1
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.93
DO concentration after Calibration (mg/L):		7.95
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)!		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		24.0
Reading before Calibration (mS/cm)		1.522
Reading AFTER Calibration (mS/cm)		1.279
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.78
pH 7.0 value after calibration:		7.0
pH 7.0 mV **(range is -50 to +50 mV)**:		-38.2
pH 10 value before calibration:		10.79
pH 10 value after calibration:		10.0
pH 10 mV **(range is -130 to -230 mV)**:		-218.4
pH 4.0 value before calibration:		4.93
pH 4.0 value after calibration:		4.0
pH 4.0 mV **(range is 130 to 230 mV)**:		136.9

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		29.1
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 = mV (T is Temperature °C)	240.0
Reading before calibration (mV):		201.7
Reading after calibration (mV):		233.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY **Note: Lens wiper should be parked 180 degrees from the optics.**				
10 NTU Turbidity Standard	Before Cal:	9.57	After Cal:	9.98
20 NTU Turbidity Standard	Before Cal:	19.3	After Cal:	20.0
100 NTU Turbidity Standard	Before Cal:	98.0	After Cal:	100
800 NTU Turbidity Check STD	Before Cal:	796	After Cal:	799
_____ NTU Turbidity Check STD	Before Cal:		After Cal:	
CALIBRATION SUCCESSFUL?				

Date: 8-20-20
Time:
Prepared By: Eric Guillen
Checked By:

Wood.
Project No. 6122201429

Pine Sonde ID: 30664
Pine Handset ID: 3061B
Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ___ No ✓ Date: ___ Time: ___	
Current Air Temperature °C (meter reading):		19.33
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		–
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	750.6
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.19
DO concentration after Calibration (mg/L):		8.62
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	–
DO Charge (DO ch):	Acceptable Range is 25 to 75	–
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	–

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		22.1
Reading before Calibration (mS/cm)		1.504
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		–

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.43
pH 7.0 value after calibration:		7.0
pH 7.0 mV (range is -50 to +50 mV):		-25.7
pH 10 value before calibration:		9.11
pH 10 value after calibration:		10.0
pH 10 mV (range is -130 to -230 mV):		-125.3
pH 4.0 value before calibration:		
pH 4.0 value after calibration:		
pH 4.0 mV (range is 130 to 230 mV):		

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		23.5
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	240
Reading before calibration (mV):		199.8
Reading after calibration (mV):		231

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
10.0 NTU Turbidity Standard	Before Cal:	9.46	After Cal:	9.97
20.0 NTU Turbidity Standard	Before Cal:	19.1	After Cal:	20.2
100.0 NTU Turbidity Standard	Before Cal:	100	After Cal:	100
800.0 NTU Turbidity Check STD	Before Cal:	796	After Cal:	799
_ NTU Turbidity Check STD	Before Cal:		After Cal:	
CALIBRATION SUCCESSFUL?				

Data Evaluation Narrative
Project: Plant Arkwright Annual Event
Wood Project Number: 6122201429.2003.**
Sites: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-109846-1

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Annual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in August 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for United States Environmental Protection Agency (USEPA) Methods SW6020B, SW7470A, EPA 300.0 R2.1, and SM 2540C.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica in Pittsburgh, Pennsylvania (TAL PIT) and analyzed for CCR Appendix IV metals by Method SW6020B and mercury by Method SW7470A, and anions (fluoride) by Method 300.0 R2.1. The samples were also analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. The radium analyses were performed at Eurofins TAL St. Louis, Missouri laboratory (TAL SL) and reported in SDG 180-109846-2. The DQE for the radium analyses is presented separately.

An associated equipment blank (EB#2) was additionally submitted for CCR Appendix III metals by Method SW6020B, anions (chloride, fluoride, and sulfate) by Method 300.0 R2.1, and total dissolved solids (TDS) by Method SM 2540C. TDS will not be evaluated in this narrative as no Ash Pond No. 3 samples were analyzed for TDS.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and/or quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3					
ARGWA-14	08/19/20	II	ARGWC-8	08/20/20	II
ARGWC-15	08/19/20	II	ARGWC-18	08/20/20	II
ARGWC-16	08/19/20	II	ARAMW-3	08/20/20	II
ARGWA-12	08/18/20	II	ARAMW-4	08/20/20	II
ARGWA-13	08/18/20	II	ARAMW-6	08/21/20	II
ARGWC-17	08/18/20	II			
ARGWC-10	08/18/20	II	**QC Samples**		
ARGWC-9	08/19/20	II	FB#1	08/18/20	II
ARGWA-5	08/18/20	II	DUP-1	08/19/20	II
ARGWA-3	08/18/20	II	EB#1	08/20/20	II
ARGWC-7	08/18/20	II	EB#2	08/19/20	II

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between August 18 and August 21, 2020. Each of the sample IDs above were amended with a date code (-0820) by Wood to create unique IDs in the database. Sample DUP-1 is a field duplicate of ARGWC-10. Samples EB#1 and EB#2 are equipment blanks, and sample FB#1 is a field blank. The equipment blank sample associations are listed below:

Equipment Blank	Associated Samples
EB#1 (bladder pump)	ARAMW-3 and ARAMW-4
EB#2 (peristaltic pump)	ARAMW-6

The analytical results for the metals, anions, and TDS data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Metals (6020B/SW7470A)

The monitoring well samples collected from Ash pond No. 3 were submitted to TAL PIT for CCR Appendix IV metals by Method SW6020B and mercury by SW7470A. The CCR Appendix IV metals are: antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), lead (Pb), lithium (Li), mercury (Hg), molybdenum (Mo), selenium (Se), and thallium (Tl). One of the associated equipment blanks (EB#2) was additionally analyzed for Appendix III metals by Method SW6020B. The CCR Appendix III metals are: boron (B) and calcium (Ca). Each of the Level II components were within QC limits except for method, field, and equipment blank contamination.

Holding Times

The sample analyses were performed within the 6-month and 28-day (for mercury) analysis holding times.

Method Blanks

One of the method blanks associated with the samples analyzed within this SDG contained thallium between the method detection limit (MDL) and the reporting limit (RL). Results less than ten times the blank are considered not detected as a possible laboratory artifact: **Reason Code: BL**.

Action: The Tl result for sample ARAMW-4 was qualified as not detected due to possible blank contamination and flagged "U".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Batch MS/MSD analyses for metals were performed on samples ARGWC-15, ARGWA-5, and ARAMW-3 and for mercury on ARGWA-14, and the recoveries and RPD were within QC limits.

Post Digestion Spike (PDS)

A PDS analysis was not available for review.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWC-10) was collected with this SDG, and the RPDs were within QC limits for results greater than or equal to five times the reporting limit.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. Two field blanks and two equipment blanks were submitted with this SDG. The equipment and field blank samples EB#1 and FB#1 did not contain reportable concentrations of metals or mercury. Equipment blank EB#2 reported thallium between the MDL and the RL. Results less than ten times the blank are considered not detected as a possible field artifact: **Reason Code: BF, BE**

Action: The Tl result for ARAMW-6 were qualified as not detected due to blank contamination and flagged "U".*

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of metals by USEPA Methods SW6020B and SW7470A. The laboratory RL was elevated where dilutions were required to place the constituent within the calibration range. None of the samples in this SDG required dilution.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Total and Dissolved Metals Comparison

Total and dissolved metals were collected on sample ARGWC-18. If total and dissolved metals samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total metals value verses the metals that may be associated with suspended solids and metals actually dissolved within the

water column. The dissolved metals results should be less than or equal to the total metals concentration for positive results greater than 5 times the RL. The total metals for ARGWC-18 were greater than the associated dissolved metals results.

Anions (EPA 300.0 R2.1)

The monitoring well samples collected from Ash Pond No. 3 samples were submitted to TAL PIT for fluoride by Method 300.0 R2.1. Each of the Level II components were within the QC limits except for MS/MSD recoveries. Equipment blank sample, EB#2, was additionally analyzed for chloride and sulfate.

Holding Times

The sample analyses were performed within the 28-day analysis holding times.

Method Blanks

The method blank associated with the samples analyzed in this SDG contained no reportable detections of anions.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The batch MS/MSDs for anions (fluoride) were performed samples ARGWC-15, ARGWC-17, ARGWC-10, ARGWA-12, ARGWC-8, ARGMW-3. The MS and MSD recoveries for sample ARGWC-15 were below the lower QC limit indicating a possible low bias. **Reason code: M-**

Action: The fluoride result for sample ARGWC-15 was qualified as estimated and flagged "J".

Field Duplicate Precision

One field duplicate/sample pairs (DUP-1/ARGWC-10) was collected with this SDG, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank samples (EB#1 and EB#2) and field blank sample (FB#1) did not contain reportable concentration of anions.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of anions by USEPA Method 300 R2.1.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the August 2020 annual event at Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate, field blank, and equipment blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 10/05/2020
Checked by/Date: JAH 10/08/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-109846-1
SAMPLING DATES: August 18 - 21, 2020
Plant Arkwright Ash Ponds No. 3 - Annual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARGWA-14	ARGWA-14	N	180-109846-1	6020B	molybdenum	0.00065	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-109846-1	300.0 R2.1	fluoride	0.081	J, F1	J	M-	mg/L
ARGWC-15	ARGWC-15	N	180-109846-1	6020B	cobalt	0.0004	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-109846-1	6020B	molybdenum	0.0016	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-109846-1	6020B	selenium	0.0029	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-109846-1	6020B	thallium	0.00027	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-109846-1	300.0 R2.1	fluoride	0.041	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-109846-1	6020B	cobalt	0.00019	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-109846-1	6020B	lithium	0.0039	J	J	--	mg/L
ARGWA-13	ARGWA-13	N	180-109846-1	6020B	lithium	0.0042	J	J	--	mg/L
ARGWC-17	ARGWC-17	N	180-109846-1	6020B	beryllium	0.00039	J	J	--	mg/L
ARGWC-10	ARGWC-10	N	180-109846-1	6020B	cobalt	0.00015	J	J	--	mg/L
ARGWC-10	ARGWC-10	N	180-109846-1	6020B	lead	0.00013	J	J	--	mg/L
DUP-1	ARGWC-10	FD	180-109846-1	6020B	cobalt	0.0002	J	J	--	mg/L
DUP-1	ARGWC-10	FD	180-109846-1	6020B	lead	0.00016	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-109846-1	6020B	cobalt	0.00013	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-109846-1	6020B	lead	0.00013	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-109846-1	6020B	thallium	0.00021	J	J	--	mg/L
ARGWA-3	ARGWA-3	N	180-109846-1	6020B	cobalt	0.00022	J	J	--	mg/L
ARGWA-3	ARGWA-3	N	180-109846-1	6020B	lead	0.00019	J	J	--	mg/L
ARGWA-3	ARGWA-3	N	180-109846-1	6020B	thallium	0.00036	J	J	--	mg/L
EB#2	Equipmemnt Blank	EB	180-109846-1	6020B	thallium	0.00015	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-109846-1	300.0 R2.1	fluoride	0.054	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-109846-1	6020B	cobalt	0.00023	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-109846-1	6020B	cobalt	0.0015	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-109846-1	6020B	lead	0.00028	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-109846-1	6020B	dissolved cobalt	0.0013	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-109846-1	6020B	cobalt	0.00056	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-109846-1	6020B	molybdenum	0.0029	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-109846-1	6020B	arsenic	0.00034	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-109846-1	6020B	thallium	<0.00022	J	U*	BL	mg/L
ARAMW-6	ARAMW-6	N	180-109846-1	300.0 R2.1	fluoride	0.051	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-109846-1	6020B	cobalt	0.0018	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-109846-1	6020B	thallium	<0.00018	J	U*	BE	mg/L

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-109846-1
SAMPLING DATES: August 18 - 21, 2020
Plant Arkwright Ash Ponds No. 3 - Annual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units

Notes:

Metals results are total metals unless otherwise noted.

Laboratory Qualifiers:

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

F1 = MS and/or MSD recovery exceeds control limits.

Reason Codes:

BE = Equipment blank contamination. The result should be considered "not-detected".
BL = Laboratory blank contamination. The result should be considered "not-detected".
M- = MS and MSD recoveries outside acceptance limits. The result may be biased low.
-- = No Reason Code assigned for values detected between the method detection limit (MDL) and the reporting limit (RL);estimated quantitation.

Validation Qualifiers:

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.The associated numerical value is the approximate concentration of the analyte in the sample.
U* = This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

Prepared by/Date: DWK 10/07/20
Checked by/Date: JAH 10/08/20

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Annual Event
Project No: 6122201429.2003.****
Method: Metals and Mercury by SW6020B/SW7470
Laboratory and Lot: TAL PIT SDG: 180-109846-1
Reviewer/Date: D. Knaub 10/02/2020 **Senior Reviewer/Date:** J. Hartness 10/08/2020

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review**	
			OK	
			Sample IDs on labels did not include the "AR" prefix, samples logged per the COC	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)**	
			OK, 1.1, 1.2, 1.5, 1.6, 2.1, 2.4, 2.6, 2.7, and 3.6°C	
X			**Holding times met (180 days; Hg = 28 days)**	
			Coll: 08/18/20 – 08/21/20	
			Prep: metals - 08/28/20, 09/01/20	Hg - 09/02/20, 09/04/20, 09/05/20
			Anal: metals - 09/17/20, 09/10/20, 09/04/20	Hg - 09/02/20, 09/05/20, 09/07/20
	X		**QC Blanks Review**	
			Method Blanks:	
			p. 52 MB 180-327640/1-A = ND	p. 54 MB 180-327642/1-A = ND
			p. 54 MB 180-327642-2-A - *B* = ND	p. 55 MB 180-328062/1-A = ND
			p. 55 MB 180-328062/1-A - *B and Cr* = ND	
			p. 56 PB 180-326831/1-E Tl = 0.000185 J mg/L x10 = **0.00185 mg/L *Flag assoc. results "U*"***	
			Reason Code: BL: *ARAMW-4*	
			p. 57-58 MB 180-328065/1-A = ND	
			p. 59 MB 180-3281521/1-A Hg = ND	p. 59 MB 180-328515/1-A Hg = ND
			p. 59 MB 180-328516/1-A Hg = ND	p. 60 MB 180-328636/1-A Hg = ND
			p. 60 PB 180-326831/1-F Hg = ND	
			Equipment Blanks: (non-dedicated equip.)	
			EB#1 (bladder) = ND	
			EB#2 (peristaltic) Tl = 0.00015 J mg/L x 10 = **0.0015 mg/L**	
			Flag assoc. results "U*": Reason Code: BE *ARAMW-6*	
			Field Blanks: (DI water)	
			FB#1 (AP3) = ND	
X			**Laboratory Control Sample (LCS) recovery within limits (Metals 80-120%, Hg = 80-120%)**	
			p. 53 LCS 180-327640/2-A metals = All OK	
			p. 54 LCS 180-327642/2-A metals = All OK	
			p. 56-57 LCS 180-328062/2-A metals = All OK	
			p. 58 LCS 180-328065/2-A metals = All OK	
			p. 58 LCS 180-326831/2-E metals = All OK	

Metals and Mercury by SW6020B/SW7470A (cont.)

YES NO NA COMMENTS

Laboratory Control Sample (cont.)

p. 59 LCS 180-328121/1-A Hg = 119%
p. 60 LCS 180-328515/2-A Hg = 101%
p. 60 LCS 180-328516/2-A Hg = 102%
p. 61 LCS 180-328636/2-A Hg = 105%

☒ **Lab Duplicate - Field Duplicate precision goals met (20%)**

Results in mg/L

metal	ARGWC-10	DUP-1-0820	RPD/Diff	RL
Sb	<0.00038	<0.00038	-	
As	<0.00031	<0.00031	-	
Ba	0.034	0.034	0.0%	
Be	<0.00018	<0.00018	-	
Cd	<0.00022	<0.00022	-	
Cr	0.0049	0.0051	4.0%	
Co*	0.00015 J	0.00020 J	0.00005	0.0025
Pb*	0.00013 J	0.00016 J	0.00003	0.001
Li	<0.0034	<0.0034	-	
Mo	<0.00061	<0.00061	-	
Se	<0.0015	<0.0015	-	
Tl	<0.00015	<0.00015	-	
Hg	<0.00013	<0.00013	-	

For detections <5x RL – use absolute difference. Difference should be < RL.

☒ **Matrix Spike recoveries and RPDs within limits (75-125%, RPD 20)**

p. 53 ARGWC-15: metals – all %rec and RPDs OK
p. 55 ARGWA-5: metals – all %rec and RPDs OK
p. 57 ARAMW-3: metals - all %rec and RPDs OK
p. 59 ARGWA-14: Hg = 118, 120% RPD = 2 OK

☒ **Total metals vs dissolved metals within limits (RPD < 20% or diff. < RL)**

ARGWC-18 anal. for dissolved and total metals, the *totals were > the assoc. dissolved*.

☒ **EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Annual Event
Project No: 6122201429.2003.****
Method: Anions (fluoride) by E300.0 R2.1
Laboratory and Lot: TAL PIT SDG: 180-109846-1
Reviewer/Date: D. Knaub 10/02/2020 **Senior Reviewer/Date:** J. Hartness 10/08/2020

YES NO NA COMMENTS

EB#2 additionally analyzed for chloride and sulfate

X **Case Narrative and COC Completeness Review**
OK
Sample IDs on labels did not include the "AR" prefix, samples logged per the COC

X **Sample Preservation and cooler temperature met (Cool to 6°C)**
OK, 1.1, 1.2, 1.5, 1.6, 2.1, 2.4, 2.6, 2.7, and 3.6°C

X **Holding times met (Cl, SO_4, F – 28 days)**
Coll: 08/18/20 – 08/21/20
Anal: 08/21/20, 08/24/20, 08/25/20, 08/26/20, 08/28/20

X **QC Blanks Review**
Method Blanks:
p. 49 MB 180-326478/18 F = ND
p. 49 MB 180-326777/6 F, Cl, SO_4 = ND
p. 49 MB 180-326785/6 F = ND
p. 50 MB 180-326890/6 F = ND
p. 50 MB 180-326917/18 F = ND
p. 51 MB 180-327077/6 F = ND
p. 52 MB 180-327578/6 F = ND

Equipment Blanks:
EB#1 F = ND EB#2 - F, Cl, SO_4 = ND

Field Blanks:
FB#1 F = ND FB#2 - F, Cl, SO_4 = ND

X **Laboratory Control Sample (LCS) recovery within limits (90-110%)**
p. 49 LCS 180-326478/17 – F = 109%
p. 49 LCS 180-326478/17 – Cl = 108%
– F = 103%
– SO_4 = 105%
p. 50 LCS 180-326785/5 – F = 95%
p. 50 LCS 180-326890/5 – F = 101%
p. 51 LCS 180-326917/17 – F = 96%
p. 51 LCS 180-327077/5 – F = 102%
p. 52 LCS 180-327578/5 – F = 97%

Anions (chloride, fluoride, and sulfate) by E300.0 R2.1 (cont.)

YES NO NA COMMENTS

X **Lab Duplicate - Field Duplicate precision goals met (20%)**

Results in mg/L

anion	ARGWC-10	DUP-1-0820	RPD
F	<0.026	<0.026	NC

All OK

X **Matrix Spike recoveries and RPDs within limits (lab %Rec limits, RPD = 20)**

p. 49 ARGWC-15 F =85, 85% RPD= 1 ***Flag assoc. result "J" - Reason code: M-***

p. 50 ARGWC-17 F = 99, 101% RPD = 1 p. 50 ARGWC-10 F = 99, 97% RPD = 3

p. 51 ARGWA-12 F = 99, 99% RPD = 0 p. 51 ARGWC-8 F = 102, 97% RPD = 5

` p. 51-52 ARAMW-3 F = 97, 99% RPD = 2 p. 52 Not a AP3 sample

No MS/MSDs on Cl or SO_4 for samples in this SDG

X **EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

Data Evaluation Narrative
Project: Plant Arkwright Annual Event
Wood Project Number: 6122201429.2003.**
Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-109846-2 (Radium)

Introduction

A data quality evaluation (DQE) was performed on the radium laboratory data reported for the Annual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in August 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for United States Environmental Protection Agency (USEPA) Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-109846-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3					
ARGWA-14	08/19/20	II	ARGWC-8	08/20/20	II
ARGWC-15	08/19/20	II	ARGWC-18	08/20/20	II
ARGWC-16	08/19/20	II	ARAMW-3	08/20/20	II
ARGWA-12	08/18/20	II	ARAMW-4	08/20/20	II
ARGWA-13	08/18/20	II	ARAMW-6	08/21/20	II
ARGWC-17	08/18/20	II			
ARGWC-10	08/18/20	II	**QC Samples**		
ARGWC-9	08/19/20	II	FB#1	08/18/20	II
ARGWA-5	08/18/20	II	DUP-1	08/19/20	II
ARGWA-3	08/18/20	II	EB#1	08/20/20	II
ARGWC-7	08/18/20	II	EB#2	08/19/20	II

These samples were collected from Ash Pond No. 3 monitoring wells listed above between August 18 and August 21, 2020. Sample DUP-1 is a field duplicate of sample ARGWC-10. Sample EB#1 is an equipment blank for wells sampled with a peristaltic pump, and EB#2 is an equipment blank for wells sampled with a non-dedicated bladder pump. Sample FB#1 is a field blank associated with the AP3 wells reported in this SDG and described in this narrative. . The equipment blank sample associations are listed below:

Equipment Blank	Associated Samples
EB#1 (bladder pump)	ARAMW-3 and ARAMW-4
EB#2 (peristaltic pump)	ARAMW-6

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits except for method blank and field blank contamination, and LCS recoveries.

Holding Times

The sample analyses were performed within the 6 months analysis holding times.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-226 above the minimum detected concentration (MDC) indicating no interference from the analytical systems. One of the method blanks contained radium-228 above the MDC, and any result less than the two-sigma (2σ) normalized absolute difference (NAD) limit of 2.58 are considered "not detected" as possible lab artifacts: **Reason Code: BL**

> *Action: The radium-228 and total radium results for sample ARGWA-5 were qualified as not detected and flagged "U*".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits except for the high LCS or LCSD recoveries of radium-228 in two analytical batches, and associated positive results are considered estimated.

> *Action: No qualification was necessary because radium-228 was not detected in the associated samples or was affected by method blank contamination in the associated sample and flagged "U*".*

Laboratory Duplicate Precision

Laboratory duplicate analyses were performed via the analysis of LCSDs. The relative error ratios (RERs) between the LCS and LCSDs were within QC limits.

Field Duplicate Precision

One field duplicate pair (ARGWC-10/DUP-1) was submitted and the RER could not be calculated because the results were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The equipment blanks did not contain radium-226 or radium-228. A field blank (FB#1) was submitted with the AP3 samples in this SDG and contained radium-228 above the MDC, and any result less than the two-sigma (2σ) normalized absolute difference (NAD) limit of 2.58 are considered "not detected" as possible field artifacts: **Reason Code: BF**

> *Action: The radium-228 and total radium results for sample ARGWC-15 were qualified as not detected and flagged "U*".*

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value verses the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the August 2020 event in Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate and equipment and field blank samples were reported in this SDG and were sampled and analyzed as scoped. Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 10/12/2020
Checked by/Date: JAH 10/14/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-109846-2
SAMPLING DATES: August 18 - 21, 2020
Plant Arkwright Ash Pond No. 3 - Annual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARGWA-5	ARGWA-5	N	180-109846-2	9320	radium-228	1.11	*	U*	BL	pCi/L
ARGWA-5	ARGWA-5	N	180-109846-2	9315 + 9320	total radium	1.12		U*	BL	pCi/L
ARGWC-15	ARGWC-15	N	180-109846-2	9320	radium-228	0.468		U*	BF	pCi/L
ARGWC-15	ARGWC-15	N	180-109846-2	9315 + 9320	total radium	0.538		U*	BF	pCi/L

Notes:

Laboratory Qualifiers:

* LCS or LCSD is outside acceptance limits

Reason Codes:
BF = Field blank contamination. The result should be considered "not-detected".
BL = Laboratory blank contamination. The result should be considered "not-detected".

Validation Qualifiers:
U* = This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
Prepared by/Date: DWK 10/12/20
Checked by/Date: JAH 10/14/20

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Annual Event
Project No: 6122201429.2003.****
Method: Radium-226, Radium-228 and Combined Radium by Methods 9315 and 9320
Laboratory and Lot: TAL PIT SDG: 180-109846-2
Reviewer/Date: D. Knaub 10/12/2020 **Senior Reviewer/Date:** J. Hartness 10/14/2020

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review**	
			OK – Samples anal. @ TAL-St. Louis	
			Sample IDs on labels did not include the "AR" prefix, samples logged per the COC	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)**	
			OK, 1.1, 1.2, 1.5, 1.6, 2.1, 2.4, 2.6, 2.7 and 3.6° C.	
X			**Holding times met (180 days)**	
			Collected: 08/18/20 – 08/21/20	
			Ra-226: prep: 08/24/20, 08/25/20, 08/28/20, 08/31/20;	
			anal: 09/15/20, 09/16/20, 09/21/20, 09/22/20	
			Ra 228: prep: 08/24/20, 08/25/20, 08/28/20, 08/31/20, 09/14/20, 09/21/20;	
			anal: 09/09/20, 09/10/20, 09/18/20, 09/21/20, 09/30/20	
			Ra, combined: anal: 09/17/20, 09/23/20, 10/02/20	
	X		**QC Blanks Review (net blank value <MDC)**	
			p. 48 MB 160-480640/24-A Ra-226 < MDC	
			p. 48 MB 160-480684/10-A Ra-226 < MDC	
			p. 49 MB 160-481082/24-A Ra-226 < MDC	
			p. 49 MB 160-481232/23-A Ra-226 < MDC	
			p. 50 MB 160-480651/24-A Ra-228 < MDC	
			p. 50 MB 160-480689/10-A Ra-228 < MDC	
			p. 51 MB 160-481085/24-A Ra-228 < MDC	
			p. 52 MB 160-481237/23-A Ra -228 < MDC	
			p. 52 MB 160-482400/9-A Ra-228 = 1.266 pCi/L	
			Assoc. results < NAD 2σ flagged "U*"	
			Reason code: BL ARGWA-5	
			Equipment Blanks: (non-dedicated equip.)	
			EB#1 (bladder) - All < MDC	
			EB#2 (peristaltic) - All < MDC	
			Field Blanks: (DI water)	
			FB#1 (AP3) Ra-228 = 0.533 pCi/L	
			Assoc. results < NAD 2σ flagged "U*"	
			Reason code: BF ARGWC-15, ARGWA-5	

YES	NO	NA	COMMENTS
X			**Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3)**

Ra-226
p. 48 LCS 160-480640/1-A Ra-226 = 91%
p. 48 LCS/LCSD 160-480684/1-A, 2-A Ra-226 = 87, 91% RER = 0.21
p. 49 LCS/LCSD 160-481082/1-A, 2-A Ra-226 = 88, 89% RER = 0.07
p. 50 LCS/LCSD 160-481232/1-A Ra-226 = 90%
Ra-228
p. 50 LCS/160-480651/1-A, Ra-228 = 104%
p. 51 LCS/LCSD 160-480689/1-A, 2-A Ra-228 = 137, 122% RER = 0.46
No flags, assoc. results < MDC
p. 51-52 LCS/LCSD 160-481085/1-A, 2-A Ra-228=107, 95% RER = 0.47
p. 52 LCS 160-481237/1-A Ra-228 = 104%
p. 53 LCS/LCSD 160-482400/1-A, 2-A Ra-228 = 117, 134% RER = 0.54
Assoc. pos. results flagged "J": Reason code: LCS-H
No flags, assoc. results < MDC or flagged "U"*

X **Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)**

Field Duplicate: ARGWC-10 = DUP-1-0820			*RER*
Ra-226	*<MDC*	*<MDC*	*NC*
Ra-226	*<MDC*	*<MDC*	*NC*
Ra, total	*<MDC*	*<MDC*	*NC*

X **Matrix Spike recoveries and RPDs within limits (if applicable)**
NA

X **Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba); Ra-228 (Carrier Ba, Tracer: Y) (40-110%)**
All ok

X **EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-111645-1
Client Project/Site: CCR - Plant Arkwright AP-3
Revision: 1

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
1/15/2021 10:18:56 AM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Job ID: 180-111645-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-111645-1

Comments
011521 Revised report to add Cadmium at client request. This report replaces the report previously issued on 122920.

Receipt
The samples were received on 9/30/2020 9:00 AM, 10/1/2020 9:00 AM and 10/2/2020 9:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.1º C, 2.7º C, 3.4º C, 3.8º C and 3.8º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Methods 6020A, 6020B: The following samples were diluted due to the nature of the sample matrix: (180-111758-E-1-A ^5), (180-111758-E-1-B MS ^5), (180-111758-E-1-C MSD ^5), (180-111758-E-1-A PDS ^5) and (180-111758-E-1-A SD ^25). Elevated reporting limits (RLs) are provided.

Methods 245.1, 7470A: The laboratory control sample (LCS) for preparation batch 180-332971 and analytical batch 180-333510 recovered outside control limits for the following analytes: Mercury These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Job ID: 180-111645-1
Project/Site: CCR - Plant Arkwright AP-3

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	12-21-20
Illinois	NELAP	004375	12-21-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	12-21-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	12-21-20
New Jersey	NELAP	PA005	12-21-20
New York	NELAP	11182	12-21-20
North Carolina (WW/SW)	State	434	11-01-20
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	12-21-20
Pennsylvania	NELAP	02-00416	11-15-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	11-23-20
Texas	NELAP	T104704528	12-21-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	12-21-20
Virginia	NELAP	10043	12-21-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111645-1	ARGWA-5	Water	09/29/20 10:50	09/30/20 09:00	
180-111645-2	ARGWA-3	Water	09/29/20 12:25	09/30/20 09:00	
180-111645-3	ARGWC-7	Water	09/29/20 14:15	09/30/20 09:00	
180-111645-4	ARGWC-16	Water	09/29/20 15:40	09/30/20 09:00	
180-111646-1	ARGWA-14	Water	09/29/20 10:35	09/30/20 09:00	
180-111646-2	ARGWC-15	Water	09/29/20 13:05	09/30/20 09:00	
180-111646-3	ARGWC-17	Water	09/29/20 14:55	09/30/20 09:00	
180-111646-4	DUP-01	Water	09/29/20 00:00	09/30/20 09:00	
180-111647-1	FB-01	Water	09/29/20 09:45	09/30/20 09:00	
180-111647-2	ARGWA-12	Ground Water	09/29/20 11:27	09/30/20 09:00	
180-111647-3	ARGWA-13	Water	09/29/20 13:30	09/30/20 09:00	
180-111689-1	EB-01	Water	09/30/20 09:05	10/01/20 09:00	
180-111689-2	ARAMW-4	Water	09/30/20 12:40	10/01/20 09:00	
180-111689-3	ARAMW-3	Water	09/30/20 16:45	10/01/20 09:00	
180-111689-4	ARGWC-18	Water	09/30/20 16:15	10/01/20 09:00	
180-111743-1	ARGWC-10	Water	10/01/20 11:00	10/02/20 09:00	
180-111743-2	ARGWC-9	Water	10/01/20 14:50	10/02/20 09:00	
180-111743-3	ARAMW-6	Water	10/01/20 14:55	10/02/20 09:00	
180-111743-4	ARGWC-8	Water	10/01/20 11:00	10/02/20 09:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
Filtration	Sample Filtration	None	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-5
Date Collected: 09/29/20 10:50
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 09:27	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:15	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 10:50	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-3
Date Collected: 09/29/20 12:25
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 09:48	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:18	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 12:25	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-7
Date Collected: 09/29/20 14:15
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 10:08	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:21	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 14:15	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-16
Date Collected: 09/29/20 15:40
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 10:29	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:38	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 15:40	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-14
Date Collected: 09/29/20 10:35
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 10:50	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:41	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 10:35	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-15
Date Collected: 09/29/20 13:05
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 11:53	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:44	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 13:05	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-17
Date Collected: 09/29/20 14:55
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 14:40	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:46	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 14:55	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-01
Date Collected: 09/29/20 00:00
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 15:01	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:49	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331934	10/01/20 06:37	AVS	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333129	09/29/20 00:00	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: FB-01
Date Collected: 09/29/20 09:45
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 08:24	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:52	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331996	10/01/20 12:36	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-12
Date Collected: 09/29/20 11:27
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 16:03	MJH	TAL PIT
	Instrument ID: INTEGRION									

Client Sample ID: ARGWA-12

Date Collected: 09/29/20 11:27
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:54	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331996	10/01/20 12:36	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333130	09/29/20 11:27	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-13

Date Collected: 09/29/20 13:30
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 17:06	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 300.0 R2.1		5			332371	10/06/20 17:27	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333113	10/12/20 15:58	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334462	10/22/20 14:57	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	331996	10/01/20 12:36	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333130	09/29/20 13:30	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EB-01

Date Collected: 09/30/20 09:05
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 09:06	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:28	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-4

Date Collected: 09/30/20 12:40
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 21:58	MJH	TAL PIT
	Instrument ID: INTEGRION									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-4

Date Collected: 09/30/20 12:40
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		10			332371	10/06/20 22:19	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:31	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333128	09/30/20 12:40	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-3

Date Collected: 09/30/20 16:45
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/06/20 23:21	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:42	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333128	09/30/20 16:45	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-18

Date Collected: 09/30/20 16:15
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332371	10/07/20 00:24	MJH	TAL PIT
	Instrument ID: INTEGRION									
Dissolved	Filtration	Filtration			250 mL	1.0 mL	332490	10/06/20 14:43	KHM	TAL PIT
Dissolved	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			334271	10/21/20 20:49	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 20:45	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332159	10/02/20 14:35	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333128	09/30/20 16:15	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-10
Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332937	10/10/20 21:23	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 21:10	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333127	10/01/20 11:00	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-9
Date Collected: 10/01/20 14:50
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332816	10/09/20 12:27	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 21:14	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333127	10/01/20 14:50	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-6
Date Collected: 10/01/20 14:55
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332937	10/11/20 01:54	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 21:25	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 13:11	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333127	10/01/20 14:55	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-8

Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			332937	10/11/20 02:15	MJH	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334271	10/21/20 21:28	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	333214	10/13/20 09:41	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			334457	10/22/20 13:15	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	332329	10/05/20 15:06	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			333127	10/01/20 11:00	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Filtration
KHM = Kyle Mucroski

Batch Type: Prep
KHM = Kyle Mucroski
TJO = Tyler Oliver

Batch Type: Analysis
AGJ = Andy Johnson
AVS = Abbey Smith
EPS = Evan Scheuer
GRB = Gabriel Berghe
MJH = Matthew Hartman
RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-5

Date Collected: 09/29/20 10:50
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.6**		1.0	0.32	mg/L			10/06/20 09:27	1
Fluoride	**0.051**	**J**	0.10	0.026	mg/L			10/06/20 09:27	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 09:27	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:15	1
Barium	**0.030**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:15	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:15	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:15	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:15	1
Calcium	**6.6**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:15	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:15	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:15	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:15	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:15	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:15	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:15	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:15	1
Thallium	**0.00019**	**J B**	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**61**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.00**				SU			09/29/20 10:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-3

Date Collected: 09/29/20 12:25
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.7**		1.0	0.32	mg/L			10/06/20 09:48	1
Fluoride	**0.065**	**J**	0.10	0.026	mg/L			10/06/20 09:48	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 09:48	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:18	1
Barium	**0.019**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:18	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:18	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:18	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:18	1
Calcium	**5.9**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:18	1
Chromium	**0.0030**		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:18	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:18	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:18	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:18	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:18	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:18	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:18	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**62**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.02**				SU			09/29/20 12:25	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-7

Date Collected: 09/29/20 14:15
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.1**		1.0	0.32	mg/L			10/06/20 10:08	1
Fluoride	**0.027**	**J**	0.10	0.026	mg/L			10/06/20 10:08	1
Sulfate	**38**		1.0	0.38	mg/L			10/06/20 10:08	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:21	1
Barium	**0.042**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:21	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:21	1
Boron	**0.078**	**J**	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:21	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:21	1
Calcium	**11**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:21	1
Chromium	**0.0031**		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:21	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:21	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:21	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:21	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:21	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:21	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:21	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**140**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.92**				SU			09/29/20 14:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-16

Date Collected: 09/29/20 15:40
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.2**		1.0	0.32	mg/L			10/06/20 10:29	1
Fluoride	**0.026**	**J**	0.10	0.026	mg/L			10/06/20 10:29	1
Sulfate	**200**		1.0	0.38	mg/L			10/06/20 10:29	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:38	1
Barium	**0.042**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:38	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:38	1
Boron	**0.081**		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:38	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:38	1
Calcium	**39**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:38	1
Chromium	**0.0020**		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:38	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:38	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:38	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:38	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:38	1
Selenium	**0.0025**	**J**	0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:38	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:38	1
Thallium	**0.00025**	**J**	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**340**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.50**				SU			09/29/20 15:40	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-14

Date Collected: 09/29/20 10:35
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.1**		1.0	0.32	mg/L			10/06/20 10:50	1
Fluoride	**0.13**		0.10	0.026	mg/L			10/06/20 10:50	1
Sulfate	**4.1**		1.0	0.38	mg/L			10/06/20 10:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00038**	**J**	0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:41	1
Barium	**0.062**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:41	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:41	1
Boron	**0.039**	**J**	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:41	1
Cadmium	**0.00023**	**J**	0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:41	1
Calcium	**29**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:41	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:41	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:41	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:41	1
Lithium	**0.0044**	**J**	0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:41	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:41	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:41	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:41	1
Thallium	**0.00019**	**J**	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**210**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.80**				SU			09/29/20 10:35	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-15

Date Collected: 09/29/20 13:05
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.5**		1.0	0.32	mg/L			10/06/20 11:53	1
Fluoride	**0.089**	**J**	0.10	0.026	mg/L			10/06/20 11:53	1
Sulfate	**7.7**		1.0	0.38	mg/L			10/06/20 11:53	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:44	1
Barium	**0.030**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:44	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:44	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:44	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:44	1
Calcium	**25**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:44	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:44	1
Cobalt	**0.00030**	**J**	0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:44	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:44	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:44	1
Molybdenum	**0.0019**	**J**	0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:44	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:44	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:44	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.11**				SU			09/29/20 13:05	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-17

Date Collected: 09/29/20 14:55
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.4**		1.0	0.32	mg/L			10/06/20 14:40	1
Fluoride	**0.029**	**J**	0.10	0.026	mg/L			10/06/20 14:40	1
Sulfate	**66**		1.0	0.38	mg/L			10/06/20 14:40	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:46	1
Barium	**0.056**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:46	1
Beryllium	**0.00040**	**J**	0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:46	1
Boron	**0.045**	**J**	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:46	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:46	1
Calcium	**12**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:46	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:46	1
Cobalt	**0.027**		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:46	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:46	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:46	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:46	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:46	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:46	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**140**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.75**				SU			09/29/20 14:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: DUP-01

Date Collected: 09/29/20 00:00
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.5**		1.0	0.32	mg/L			10/06/20 15:01	1
Fluoride	**0.029**	**J**	0.10	0.026	mg/L			10/06/20 15:01	1
Sulfate	**69**		1.0	0.38	mg/L			10/06/20 15:01	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:49	1
Barium	**0.058**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:49	1
Beryllium	**0.00040**	**J**	0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:49	1
Boron	**0.045**	**J**	0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:49	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:49	1
Calcium	**13**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:49	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:49	1
Cobalt	**0.027**		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:49	1
Lead	**0.00015**	**J**	0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:49	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:49	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:49	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:49	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**140**		10	10	mg/L			10/01/20 06:37	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.75**				SU			09/29/20 00:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: FB-01

Date Collected: 09/29/20 09:45
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 08:24	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 08:24	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 08:24	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:52	1
Barium	<0.0016		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:52	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:52	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:52	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:52	1
Calcium	<0.13		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:52	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:52	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:52	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:52	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:52	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:52	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:52	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:52	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/01/20 12:36	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-12

Date Collected: 09/29/20 11:27
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-2

Matrix: Ground Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		1.0	0.32	mg/L			10/06/20 16:03	1
Fluoride	**0.060**	**J**	0.10	0.026	mg/L			10/06/20 16:03	1
Sulfate	**8.3**		1.0	0.38	mg/L			10/06/20 16:03	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:54	1
Barium	**0.079**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:54	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:54	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:54	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:54	1
Calcium	**14**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:54	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:54	1
Cobalt	**0.00016**	**J**	0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:54	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:54	1
Lithium	**0.0048**	**J**	0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:54	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:54	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:54	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:54	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		10	10	mg/L			10/01/20 12:36	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.88**				SU			09/29/20 11:27	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWA-13
Date Collected: 09/29/20 13:30
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-3
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.7**		1.0	0.32	mg/L			10/06/20 17:06	1
Fluoride	**0.032**	**J**	0.10	0.026	mg/L			10/06/20 17:06	1
Sulfate	**540**		5.0	1.9	mg/L			10/06/20 17:27	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:57	1
Barium	**0.024**		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:57	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:57	1
Boron	**0.35**		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:57	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:57	1
Calcium	**120**		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:57	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:57	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:57	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:57	1
Lithium	**0.0052**		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:57	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:57	1
Selenium	**0.021**		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:57	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:57	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**880**		10	10	mg/L			10/01/20 12:36	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.75**				SU			09/29/20 13:30	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: EB-01
Date Collected: 09/30/20 09:05
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-1
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 09:06	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 09:06	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 09:06	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:28	1
Barium	<0.0016		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:28	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:28	1
Boron	**0.048**	**J**	0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:28	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:28	1
Calcium	<0.13		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:28	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:28	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:28	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:28	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:28	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:28	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:28	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:28	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/02/20 14:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-4

Date Collected: 09/30/20 12:40
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.0**		1.0	0.32	mg/L			10/06/20 21:58	1
Fluoride	**0.028**	**J**	0.10	0.026	mg/L			10/06/20 21:58	1
Sulfate	**790**		10	3.8	mg/L			10/06/20 22:19	10

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00039**	**J**	0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:31	1
Barium	**0.053**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:31	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:31	1
Boron	**0.36**		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:31	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:31	1
Calcium	**210**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:31	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:31	1
Cobalt	**0.0046**		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:31	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:31	1
Lithium	**0.012**		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:31	1
Molybdenum	**0.00073**	**J**	0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:31	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:31	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:31	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		10	10	mg/L			10/02/20 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.94**				SU			09/30/20 12:40	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-3

Date Collected: 09/30/20 16:45
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.5**		1.0	0.32	mg/L			10/06/20 23:21	1
Fluoride	**0.064**	**J**	0.10	0.026	mg/L			10/06/20 23:21	1
Sulfate	**49**		1.0	0.38	mg/L			10/06/20 23:21	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:42	1
Barium	**0.094**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:42	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:42	1
Boron	**1.1**		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:42	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:42	1
Calcium	**37**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:42	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:42	1
Cobalt	**0.0011**	**J**	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:42	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:42	1
Lithium	**0.0055**		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:42	1
Molybdenum	**0.0061**	**J**	0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:42	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:42	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:42	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**240**		10	10	mg/L			10/02/20 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.41**				SU			09/30/20 16:45	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-18

Date Collected: 09/30/20 16:15
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.9**		1.0	0.32	mg/L			10/07/20 00:24	1
Fluoride	**0.082**	**J**	0.10	0.026	mg/L			10/07/20 00:24	1
Sulfate	**170**		1.0	0.38	mg/L			10/07/20 00:24	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:45	1
Barium	**0.041**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:45	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:45	1
Boron	**2.6**		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:45	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:45	1
Calcium	**52**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:45	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:45	1
Cobalt	**0.0013**	**J**	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:45	1
Lead	**0.00020**	**J**	0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:45	1
Lithium	**0.0048**	**J**	0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:45	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:45	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:45	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:45	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:45	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:49	1
Barium	**0.037**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:49	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:49	1
Boron	**2.7**		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:49	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:49	1
Calcium	**53**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:49	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:49	1
Cobalt	**0.0012**	**J**	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:49	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:49	1
Lithium	**0.0046**	**J**	0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:49	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:49	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:49	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:49	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**390**		10	10	mg/L			10/02/20 14:35	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.98**				SU			09/30/20 16:15	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-10

Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.9**		1.0	0.32	mg/L			10/10/20 21:23	1
Fluoride	**0.048**	**J**	0.10	0.026	mg/L			10/10/20 21:23	1
Sulfate	<0.38		1.0	0.38	mg/L			10/10/20 21:23	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:10	1
Barium	**0.032**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:10	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:10	1
Boron	**0.082**		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 21:10	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:10	1
Calcium	**8.1**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:10	1
Chromium	**0.0047**		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:10	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:10	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:10	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:10	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:10	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:10	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:10	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**93**		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.83**				SU			10/01/20 11:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-9

Date Collected: 10/01/20 14:50
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.5**		1.0	0.32	mg/L			10/09/20 12:27	1
Fluoride	**0.041**	**J**	0.10	0.026	mg/L			10/09/20 12:27	1
Sulfate	**0.82**	**J**	1.0	0.38	mg/L			10/09/20 12:27	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:14	1
Barium	**0.045**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:14	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:14	1
Boron	**0.041**	**J**	0.080	0.039	mg/L		10/13/20 09:41	10/21/20 21:14	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:14	1
Calcium	**5.7**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:14	1
Chromium	**0.0075**		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:14	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:14	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:14	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:14	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:14	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:14	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:14	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**55**		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.78**				SU			10/01/20 14:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARAMW-6

Date Collected: 10/01/20 14:55
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.0**		1.0	0.32	mg/L			10/11/20 01:54	1
Fluoride	**0.071**	**J**	0.10	0.026	mg/L			10/11/20 01:54	1
Sulfate	**58**		1.0	0.38	mg/L			10/11/20 01:54	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:25	1
Barium	**0.044**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:25	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:25	1
Boron	**1.1**		0.080	0.039	mg/L		10/13/20 09:41	10/22/20 13:11	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:25	1
Calcium	**38**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:25	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:25	1
Cobalt	**0.0018**	**J**	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:25	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:25	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:25	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:25	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:25	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:25	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**220**		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.37**				SU			10/01/20 14:55	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Client Sample ID: ARGWC-8

Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.0**		1.0	0.32	mg/L			10/11/20 02:15	1
Fluoride	**0.14**		0.10	0.026	mg/L			10/11/20 02:15	1
Sulfate	**57**		1.0	0.38	mg/L			10/11/20 02:15	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 21:28	1
Barium	**0.052**		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 21:28	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 21:28	1
Boron	**1.2**		0.080	0.039	mg/L		10/13/20 09:41	10/22/20 13:15	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 21:28	1
Calcium	**52**		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 21:28	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 21:28	1
Cobalt	**0.00021**	**J**	0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 21:28	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 21:28	1
Lithium	**0.0035**	**J**	0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 21:28	1
Molybdenum	**0.043**		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 21:28	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 21:28	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 21:28	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 21:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**270**		10	10	mg/L			10/05/20 15:06	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.44**				SU			10/01/20 11:00	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-332371/38
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 19:11	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 19:11	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 19:11	1

Lab Sample ID: MB 180-332371/6
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/06/20 05:29	1
Fluoride	<0.026		0.10	0.026	mg/L			10/06/20 05:29	1
Sulfate	<0.38		1.0	0.38	mg/L			10/06/20 05:29	1

Lab Sample ID: LCS 180-332371/37
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.4		mg/L		97	90 - 110
Fluoride	2.50	2.38		mg/L		95	90 - 110
Sulfate	50.0	47.0		mg/L		94	90 - 110

Lab Sample ID: LCS 180-332371/5
Matrix: Water
Analysis Batch: 332371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.6		mg/L		99	90 - 110
Fluoride	2.50	2.40		mg/L		96	90 - 110
Sulfate	50.0	48.2		mg/L		96	90 - 110

Lab Sample ID: 180-111646-2 MS
Matrix: Water
Analysis Batch: 332371

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.5		50.0	51.9		mg/L		99	90 - 110
Fluoride	0.089	J	2.50	2.55		mg/L		98	90 - 110
Sulfate	7.7		50.0	56.4		mg/L		97	90 - 110

Lab Sample ID: 180-111646-2 MSD
Matrix: Water
Analysis Batch: 332371

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.5		50.0	52.3		mg/L		100	90 - 110	1	20
Fluoride	0.089	J	2.50	2.58		mg/L		100	90 - 110	1	20
Sulfate	7.7		50.0	56.8		mg/L		98	90 - 110	1	20

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-111647-2 MS
Matrix: Ground Water
Analysis Batch: 332371

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12		50.0	58.5		mg/L		94	90 - 110
Fluoride	0.060	J	2.50	2.43		mg/L		95	90 - 110
Sulfate	8.3		50.0	55.2		mg/L		94	90 - 110

Lab Sample ID: 180-111647-2 MSD
Matrix: Ground Water
Analysis Batch: 332371

Client Sample ID: ARGWA-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12		50.0	60.8		mg/L		98	90 - 110	4	20
Fluoride	0.060	J	2.50	2.55		mg/L		99	90 - 110	5	20
Sulfate	8.3		50.0	57.4		mg/L		98	90 - 110	4	20

Lab Sample ID: MB 180-332816/6
Matrix: Water
Analysis Batch: 332816

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/09/20 10:01	1
Fluoride	<0.026		0.10	0.026	mg/L			10/09/20 10:01	1
Sulfate	<0.38		1.0	0.38	mg/L			10/09/20 10:01	1

Lab Sample ID: LCS 180-332816/5
Matrix: Water
Analysis Batch: 332816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.0		mg/L		98	90 - 110
Fluoride	2.50	2.42		mg/L		97	90 - 110
Sulfate	50.0	47.4		mg/L		95	90 - 110

Lab Sample ID: MB 180-332937/43
Matrix: Water
Analysis Batch: 332937

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			10/10/20 21:02	1
Fluoride	<0.026		0.10	0.026	mg/L			10/10/20 21:02	1
Sulfate	<0.38		1.0	0.38	mg/L			10/10/20 21:02	1

Lab Sample ID: LCS 180-332937/42
Matrix: Water
Analysis Batch: 332937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.2		mg/L		98	90 - 110
Fluoride	2.50	2.39		mg/L		95	90 - 110
Sulfate	50.0	47.7		mg/L		95	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-111743-1 MS
Matrix: Water
Analysis Batch: 332937

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.9		50.0	51.5		mg/L		95	90 - 110
Fluoride	0.048	J	2.50	2.46		mg/L		97	90 - 110
Sulfate	<0.38		50.0	47.6		mg/L		95	90 - 110

Lab Sample ID: 180-111743-1 MSD
Matrix: Water
Analysis Batch: 332937

Client Sample ID: ARGWC-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.9		50.0	51.4		mg/L		95	90 - 110	0	20
Fluoride	0.048	J	2.50	2.46		mg/L		96	90 - 110	0	20
Sulfate	<0.38		50.0	47.7		mg/L		95	90 - 110	0	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-333113/1-A
Matrix: Water
Analysis Batch: 334462

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/12/20 15:58	10/22/20 14:08	1
Barium	<0.0016		0.010	0.0016	mg/L		10/12/20 15:58	10/22/20 14:08	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/12/20 15:58	10/22/20 14:08	1
Boron	<0.039		0.080	0.039	mg/L		10/12/20 15:58	10/22/20 14:08	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/12/20 15:58	10/22/20 14:08	1
Calcium	<0.13		0.50	0.13	mg/L		10/12/20 15:58	10/22/20 14:08	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/12/20 15:58	10/22/20 14:08	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/12/20 15:58	10/22/20 14:08	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/12/20 15:58	10/22/20 14:08	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/12/20 15:58	10/22/20 14:08	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/12/20 15:58	10/22/20 14:08	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/12/20 15:58	10/22/20 14:08	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/12/20 15:58	10/22/20 14:08	1
Thallium	0.000208	J	0.0010	0.00015	mg/L		10/12/20 15:58	10/22/20 14:08	1

Lab Sample ID: LCS 180-333113/2-A
Matrix: Water
Analysis Batch: 334462

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.02		mg/L		102	80 - 120
Barium	1.00	0.998		mg/L		100	80 - 120
Beryllium	0.500	0.516		mg/L		103	80 - 120
Boron	1.25	1.11		mg/L		89	80 - 120
Cadmium	0.500	0.522		mg/L		104	80 - 120
Calcium	25.0	27.6		mg/L		110	80 - 120
Chromium	0.500	0.502		mg/L		100	80 - 120
Cobalt	0.500	0.502		mg/L		100	80 - 120
Lead	0.500	0.505		mg/L		101	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-333113/2-A
Matrix: Water
Analysis Batch: 334462

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.489		mg/L		98	80 - 120
Molybdenum	0.500	0.525		mg/L		105	80 - 120
Selenium	1.00	1.05		mg/L		105	80 - 120
Silver	0.250	0.251		mg/L		101	80 - 120
Thallium	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: 180-111645-3 MS
Matrix: Water
Analysis Batch: 334462

Client Sample ID: ARGWC-7
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.00031		1.00	1.01		mg/L		101	75 - 125
Barium	0.042		1.00	1.05		mg/L		101	75 - 125
Beryllium	<0.00018		0.500	0.507		mg/L		101	75 - 125
Boron	0.078	J	1.25	1.18		mg/L		88	75 - 125
Cadmium	<0.00022		0.500	0.521		mg/L		104	75 - 125
Calcium	11		25.0	37.3		mg/L		106	75 - 125
Chromium	0.0031		0.500	0.499		mg/L		99	75 - 125
Cobalt	<0.00013		0.500	0.499		mg/L		100	75 - 125
Lead	<0.00013		0.500	0.484		mg/L		97	75 - 125
Lithium	<0.0034		0.500	0.484		mg/L		97	75 - 125
Molybdenum	<0.00061		0.500	0.527		mg/L		105	75 - 125
Selenium	<0.0015		1.00	1.02		mg/L		102	75 - 125
Silver	<0.00018		0.250	0.252		mg/L		101	75 - 125
Thallium	<0.00015		1.00	0.994		mg/L		99	75 - 125

Lab Sample ID: 180-111645-3 MSD
Matrix: Water
Analysis Batch: 334462

Client Sample ID: ARGWC-7
Prep Type: Total Recoverable
Prep Batch: 333113

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	<0.00031		1.00	1.03		mg/L		103	75 - 125	1	20
Barium	0.042		1.00	1.07		mg/L		103	75 - 125	2	20
Beryllium	<0.00018		0.500	0.511		mg/L		102	75 - 125	1	20
Boron	0.078	J	1.25	1.20		mg/L		90	75 - 125	1	20
Cadmium	<0.00022		0.500	0.523		mg/L		105	75 - 125	0	20
Calcium	11		25.0	37.5		mg/L		107	75 - 125	1	20
Chromium	0.0031		0.500	0.505		mg/L		100	75 - 125	1	20
Cobalt	<0.00013		0.500	0.506		mg/L		101	75 - 125	1	20
Lead	<0.00013		0.500	0.498		mg/L		100	75 - 125	3	20
Lithium	<0.0034		0.500	0.489		mg/L		98	75 - 125	1	20
Molybdenum	<0.00061		0.500	0.530		mg/L		106	75 - 125	1	20
Selenium	<0.0015		1.00	1.04		mg/L		104	75 - 125	2	20
Silver	<0.00018		0.250	0.254		mg/L		102	75 - 125	1	20
Thallium	<0.00015		1.00	1.02		mg/L		102	75 - 125	3	20

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-333214/1-A
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 19:59	1
Barium	<0.0016		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 19:59	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 19:59	1
Boron	<0.039		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 19:59	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 19:59	1
Calcium	<0.13		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 19:59	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 19:59	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 19:59	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 19:59	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 19:59	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 19:59	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 19:59	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 19:59	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 19:59	1

Lab Sample ID: MB 180-333214/1-A
Matrix: Water
Analysis Batch: 334457

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		10/13/20 09:41	10/22/20 13:04	1

Lab Sample ID: LCS 180-333214/2-A
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.06		mg/L		106	80 - 120
Barium	1.00	1.06		mg/L		106	80 - 120
Beryllium	0.500	0.531		mg/L		106	80 - 120
Boron	1.25	1.34		mg/L		107	80 - 120
Cadmium	0.500	0.522		mg/L		104	80 - 120
Chromium	0.500	0.524		mg/L		105	80 - 120
Cobalt	0.500	0.524		mg/L		105	80 - 120
Lead	0.500	0.526		mg/L		105	80 - 120
Lithium	0.500	0.509		mg/L		102	80 - 120
Molybdenum	0.500	0.530		mg/L		106	80 - 120
Selenium	1.00	1.04		mg/L		104	80 - 120
Silver	0.250	0.257		mg/L		103	80 - 120
Thallium	1.00	1.13		mg/L		113	80 - 120

Lab Sample ID: LCS 180-333214/2-A
Matrix: Water
Analysis Batch: 334457

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	25.0	27.7		mg/L		111	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: PB 180-332490/1-G
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 333214

Analyte	PB Result	PB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		10/13/20 09:41	10/21/20 20:03	1
Barium	<0.0016		0.010	0.0016	mg/L		10/13/20 09:41	10/21/20 20:03	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		10/13/20 09:41	10/21/20 20:03	1
Boron	<0.039		0.080	0.039	mg/L		10/13/20 09:41	10/21/20 20:03	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		10/13/20 09:41	10/21/20 20:03	1
Calcium	<0.13		0.50	0.13	mg/L		10/13/20 09:41	10/21/20 20:03	1
Chromium	<0.0015		0.0020	0.0015	mg/L		10/13/20 09:41	10/21/20 20:03	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		10/13/20 09:41	10/21/20 20:03	1
Lead	<0.00013		0.0010	0.00013	mg/L		10/13/20 09:41	10/21/20 20:03	1
Lithium	<0.0034		0.0050	0.0034	mg/L		10/13/20 09:41	10/21/20 20:03	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		10/13/20 09:41	10/21/20 20:03	1
Selenium	<0.0015		0.0050	0.0015	mg/L		10/13/20 09:41	10/21/20 20:03	1
Silver	<0.00018		0.0010	0.00018	mg/L		10/13/20 09:41	10/21/20 20:03	1
Thallium	<0.00015		0.0010	0.00015	mg/L		10/13/20 09:41	10/21/20 20:03	1

Lab Sample ID: LCS 180-332490/2-G
Matrix: Water
Analysis Batch: 334271

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 333214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.01		mg/L		101	80 - 120
Barium	1.00	1.02		mg/L		102	80 - 120
Beryllium	0.500	0.500		mg/L		100	80 - 120
Boron	1.25	1.25		mg/L		100	80 - 120
Cadmium	0.500	0.501		mg/L		100	80 - 120
Calcium	25.0	28.8		mg/L		115	80 - 120
Chromium	0.500	0.497		mg/L		99	80 - 120
Cobalt	0.500	0.499		mg/L		100	80 - 120
Lead	0.500	0.505		mg/L		101	80 - 120
Lithium	0.500	0.483		mg/L		97	80 - 120
Molybdenum	0.500	0.509		mg/L		102	80 - 120
Selenium	1.00	0.985		mg/L		98	80 - 120
Silver	0.250	0.248		mg/L		99	80 - 120
Thallium	1.00	1.09		mg/L		109	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-331934/2
Matrix: Water
Analysis Batch: 331934

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/01/20 06:37	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 180-331934/1
Matrix: Water
Analysis Batch: 331934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	632	626		mg/L		99	80 - 120

Lab Sample ID: 180-111645-4 DU
Matrix: Water
Analysis Batch: 331934

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	340		344		mg/L		1	10

Lab Sample ID: MB 180-331996/2
Matrix: Water
Analysis Batch: 331996

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/01/20 12:36	1

Lab Sample ID: LCS 180-331996/1
Matrix: Water
Analysis Batch: 331996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	714	606		mg/L		85	80 - 120

Lab Sample ID: MB 180-332159/2
Matrix: Water
Analysis Batch: 332159

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/02/20 14:35	1

Lab Sample ID: LCS 180-332159/1
Matrix: Water
Analysis Batch: 332159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	714	742		mg/L		104	80 - 120

Lab Sample ID: 180-111689-2 DU
Matrix: Water
Analysis Batch: 332159

Client Sample ID: ARAMW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1330		mg/L		0.6	10

Lab Sample ID: MB 180-332329/2
Matrix: Water
Analysis Batch: 332329

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			10/05/20 15:06	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 180-332329/1
Matrix: Water
Analysis Batch: 332329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	357	336		mg/L		94	80 - 120

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-1

HPLC/IC

Analysis Batch: 332371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-111645-2	ARGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-111645-3	ARGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-111645-4	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-111646-1	ARGWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-111646-2	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-111646-3	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-111646-4	DUP-01	Total/NA	Water	EPA 300.0 R2.1	
180-111647-1	FB-01	Total/NA	Water	EPA 300.0 R2.1	
180-111647-2	ARGWA-12	Total/NA	Ground Water	EPA 300.0 R2.1	
180-111647-3	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-111647-3	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-111689-1	EB-01	Total/NA	Water	EPA 300.0 R2.1	
180-111689-2	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-111689-2	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-111689-3	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
180-111689-4	ARGWC-18	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332371/38	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332371/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332371/37	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332371/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-111646-2 MS	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-111646-2 MSD	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-111647-2 MS	ARGWA-12	Total/NA	Ground Water	EPA 300.0 R2.1	
180-111647-2 MSD	ARGWA-12	Total/NA	Ground Water	EPA 300.0 R2.1	

Analysis Batch: 332816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-2	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332816/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332816/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 332937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-111743-3	ARAMW-6	Total/NA	Water	EPA 300.0 R2.1	
180-111743-4	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
MB 180-332937/43	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-332937/42	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-111743-1 MS	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-111743-1 MSD	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	

Metals

Filtration Batch: 332490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-4	ARGWC-18	Dissolved	Water	Filtration	
PB 180-332490/1-G	Method Blank	Dissolved	Water	Filtration	
LCS 180-332490/2-G	Lab Control Sample	Dissolved	Water	Filtration	

Metals

Prep Batch: 333113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total Recoverable	Water	3005A	
180-111645-2	ARGWA-3	Total Recoverable	Water	3005A	
180-111645-3	ARGWC-7	Total Recoverable	Water	3005A	
180-111645-4	ARGWC-16	Total Recoverable	Water	3005A	
180-111646-1	ARGWA-14	Total Recoverable	Water	3005A	
180-111646-2	ARGWC-15	Total Recoverable	Water	3005A	
180-111646-3	ARGWC-17	Total Recoverable	Water	3005A	
180-111646-4	DUP-01	Total Recoverable	Water	3005A	
180-111647-1	FB-01	Total Recoverable	Water	3005A	
180-111647-2	ARGWA-12	Total Recoverable	Ground Water	3005A	
180-111647-3	ARGWA-13	Total Recoverable	Water	3005A	
MB 180-333113/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-333113/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-111645-3 MS	ARGWC-7	Total Recoverable	Water	3005A	
180-111645-3 MSD	ARGWC-7	Total Recoverable	Water	3005A	

Prep Batch: 333214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total Recoverable	Water	3005A	
180-111689-2	ARAMW-4	Total Recoverable	Water	3005A	
180-111689-3	ARAMW-3	Total Recoverable	Water	3005A	
180-111689-4	ARGWC-18	Dissolved	Water	3005A	332490
180-111689-4	ARGWC-18	Total Recoverable	Water	3005A	
180-111743-1	ARGWC-10	Total Recoverable	Water	3005A	
180-111743-2	ARGWC-9	Total Recoverable	Water	3005A	
180-111743-3	ARAMW-6	Total Recoverable	Water	3005A	
180-111743-4	ARGWC-8	Total Recoverable	Water	3005A	
MB 180-333214/1-A	Method Blank	Total Recoverable	Water	3005A	
PB 180-332490/1-G	Method Blank	Dissolved	Water	3005A	332490
LCS 180-332490/2-G	Lab Control Sample	Dissolved	Water	3005A	332490
LCS 180-333214/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 334271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total Recoverable	Water	EPA 6020B	333214
180-111689-2	ARAMW-4	Total Recoverable	Water	EPA 6020B	333214
180-111689-3	ARAMW-3	Total Recoverable	Water	EPA 6020B	333214
180-111689-4	ARGWC-18	Dissolved	Water	EPA 6020B	333214
180-111689-4	ARGWC-18	Total Recoverable	Water	EPA 6020B	333214
180-111743-1	ARGWC-10	Total Recoverable	Water	EPA 6020B	333214
180-111743-2	ARGWC-9	Total Recoverable	Water	EPA 6020B	333214
180-111743-3	ARAMW-6	Total Recoverable	Water	EPA 6020B	333214
180-111743-4	ARGWC-8	Total Recoverable	Water	EPA 6020B	333214
MB 180-333214/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	333214
PB 180-332490/1-G	Method Blank	Dissolved	Water	EPA 6020B	333214
LCS 180-332490/2-G	Lab Control Sample	Dissolved	Water	EPA 6020B	333214
LCS 180-333214/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	333214

Analysis Batch: 334457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-3	ARAMW-6	Total Recoverable	Water	EPA 6020B	333214

Metals (Continued)

Analysis Batch: 334457 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-4	ARGWC-8	Total Recoverable	Water	EPA 6020B	333214
MB 180-333214/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	333214
LCS 180-333214/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	333214

Analysis Batch: 334462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total Recoverable	Water	EPA 6020B	333113
180-111645-2	ARGWA-3	Total Recoverable	Water	EPA 6020B	333113
180-111645-3	ARGWC-7	Total Recoverable	Water	EPA 6020B	333113
180-111645-4	ARGWC-16	Total Recoverable	Water	EPA 6020B	333113
180-111646-1	ARGWA-14	Total Recoverable	Water	EPA 6020B	333113
180-111646-2	ARGWC-15	Total Recoverable	Water	EPA 6020B	333113
180-111646-3	ARGWC-17	Total Recoverable	Water	EPA 6020B	333113
180-111646-4	DUP-01	Total Recoverable	Water	EPA 6020B	333113
180-111647-1	FB-01	Total Recoverable	Water	EPA 6020B	333113
180-111647-2	ARGWA-12	Total Recoverable	Ground Water	EPA 6020B	333113
180-111647-3	ARGWA-13	Total Recoverable	Water	EPA 6020B	333113
MB 180-333113/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	333113
LCS 180-333113/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	333113
180-111645-3 MS	ARGWC-7	Total Recoverable	Water	EPA 6020B	333113
180-111645-3 MSD	ARGWC-7	Total Recoverable	Water	EPA 6020B	333113

General Chemistry

Analysis Batch: 331934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	SM 2540C	
180-111645-2	ARGWA-3	Total/NA	Water	SM 2540C	
180-111645-3	ARGWC-7	Total/NA	Water	SM 2540C	
180-111645-4	ARGWC-16	Total/NA	Water	SM 2540C	
180-111646-1	ARGWA-14	Total/NA	Water	SM 2540C	
180-111646-2	ARGWC-15	Total/NA	Water	SM 2540C	
180-111646-3	ARGWC-17	Total/NA	Water	SM 2540C	
180-111646-4	DUP-01	Total/NA	Water	SM 2540C	
MB 180-331934/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-331934/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-111645-4 DU	ARGWC-16	Total/NA	Water	SM 2540C	

Analysis Batch: 331996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111647-1	FB-01	Total/NA	Water	SM 2540C	
180-111647-2	ARGWA-12	Total/NA	Ground Water	SM 2540C	
180-111647-3	ARGWA-13	Total/NA	Water	SM 2540C	
MB 180-331996/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-331996/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 332159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total/NA	Water	SM 2540C	
180-111689-2	ARAMW-4	Total/NA	Water	SM 2540C	
180-111689-3	ARAMW-3	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 332159 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-4	ARGWC-18	Total/NA	Water	SM 2540C	
MB 180-332159/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-332159/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-111689-2 DU	ARAMW-4	Total/NA	Water	SM 2540C	

Analysis Batch: 332329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	SM 2540C	
180-111743-2	ARGWC-9	Total/NA	Water	SM 2540C	
180-111743-3	ARAMW-6	Total/NA	Water	SM 2540C	
180-111743-4	ARGWC-8	Total/NA	Water	SM 2540C	
MB 180-332329/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-332329/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 333127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	Field Sampling	
180-111743-2	ARGWC-9	Total/NA	Water	Field Sampling	
180-111743-3	ARAMW-6	Total/NA	Water	Field Sampling	
180-111743-4	ARGWC-8	Total/NA	Water	Field Sampling	

Analysis Batch: 333128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-2	ARAMW-4	Total/NA	Water	Field Sampling	
180-111689-3	ARAMW-3	Total/NA	Water	Field Sampling	
180-111689-4	ARGWC-18	Total/NA	Water	Field Sampling	

Analysis Batch: 333129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	Field Sampling	
180-111645-2	ARGWA-3	Total/NA	Water	Field Sampling	
180-111645-3	ARGWC-7	Total/NA	Water	Field Sampling	
180-111645-4	ARGWC-16	Total/NA	Water	Field Sampling	
180-111646-1	ARGWA-14	Total/NA	Water	Field Sampling	
180-111646-2	ARGWC-15	Total/NA	Water	Field Sampling	
180-111646-3	ARGWC-17	Total/NA	Water	Field Sampling	
180-111646-4	DUP-01	Total/NA	Water	Field Sampling	

Analysis Batch: 333130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111647-2	ARGWA-12	Total/NA	Ground Water	Field Sampling	
180-111647-3	ARGWA-13	Total/NA	Water	Field Sampling	

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Pittsburgh, PA 15238
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Chain of Custody Record 244- ATLANTA

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Client Information	Sampler: DHoward, EGuilen, AShoreditch	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 3
Company: Southern Company				Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: Standard			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	MD	MD		
ARGWA-5	9/29/20	1050	G	W			X	X	X	X	X	X		pH=6.00
ARGWA-3		1225	G	W			X	X	X	X	X	X		pH=6.02
ARGWC-7		1415	G	W			X	X	X	X	X	X		pH=5.92
ARGWC-16		1540	G	W			X	X	X	X	X	X		pH=5.50

180-111645 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	9/29/20/1745	Wood	[signature]	9-30-20	FTAPitt
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:00	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

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Client Information	Sampler: DHoward, EGullen, ASheedits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 3
Company: Southern Company		Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: standard			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Atlanta	TAT Requested (days):			Other:
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	D	N	N	XD	XD	X	
ARGWA-14	9/29/20	1035	G	W			X	X	X	X	X	X		pH=6.80
ARGWC-15		1305	G	W			X	X	X	X	X	X		pH=7.11
~~ARGWC-17~~ ARGWC-17		1455	G	W			X	X	X	X	X	X		pH=5.75
DUP-01		—	G	W			X	X	X	X	X	X		pH=5.75

180-111646 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	9/29/20 1745	Wood	[signature]	9-30-20	EAP 1/7
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 900	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

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Client Information	Sampler: D Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 3
Company: Southern Company				Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: Standard			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone:	PO #: GPC11084570			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	XD	XD		
FB-01	9/29/20	0945	G	W			X	X	X	X	X	X		
ARGWA-12	↓	1127	G	W			X	X	X	X	X	X		pH=5.88
ARGWA-13	↓	1330	G	W			X	X	X	X	X	X		pH=5.75

180-111647 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: David Howard	Date/Time: 9/29/20 / 1745	Company: Wood	Received by:	Date/Time: 9-30-20 9:00	Company:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record 244- ATLANTA

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Client Information	Sampler: EGuillen, AShoreditis	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.2
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 1
Company: Southern Company				Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: Standard	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			Other:
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	6020B - Custom 15 (App III/IV (Diss)) *	7470A - Hg (Diss) *	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	MD	MD	D	D		
EB-01	9/30/20	0905	G	W			X	X	X	X	X	X			3	
ARAMW-4		1240	G	W			X	X	X	X	X	X			3	pH = 5.94
ARAMW-3		1645	G	W			X	X	X	X	X	X			3	pH = 6.41
ARGWC-18	↓	1615	G	W	X		X	X	X	X	X	X	X	X	4	pH = 5.98

180-111689 Chain of Custody

* Lab will Filter dissolved metals sample

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	9/30/20/ 1815		Willie Watson	10-1-20	EARTH
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:00	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record 244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: EGillen, AShoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.2
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 2 of 3
Company: Southern Company				Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: standard			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
		Preservation Code:					D	D	N	N	XD	XD		
ARGWC-10	10/1/20	1100	G	W			X	X	X	X	X	X	3	pH=5.83
ARGWC-9		1450	G	W			X	X	X	X	X	X	3	pH=5.78
ARAMW-6		1455	G	W			X	X	X	X	X	X	3	pH=6.37
ARGWC-8		1100	G	W			X	X	X	X	X	X	3	pH=6.44

180-111743 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	David Howard	10/1/20/1820	Wood		10/2/20 930	
2						
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

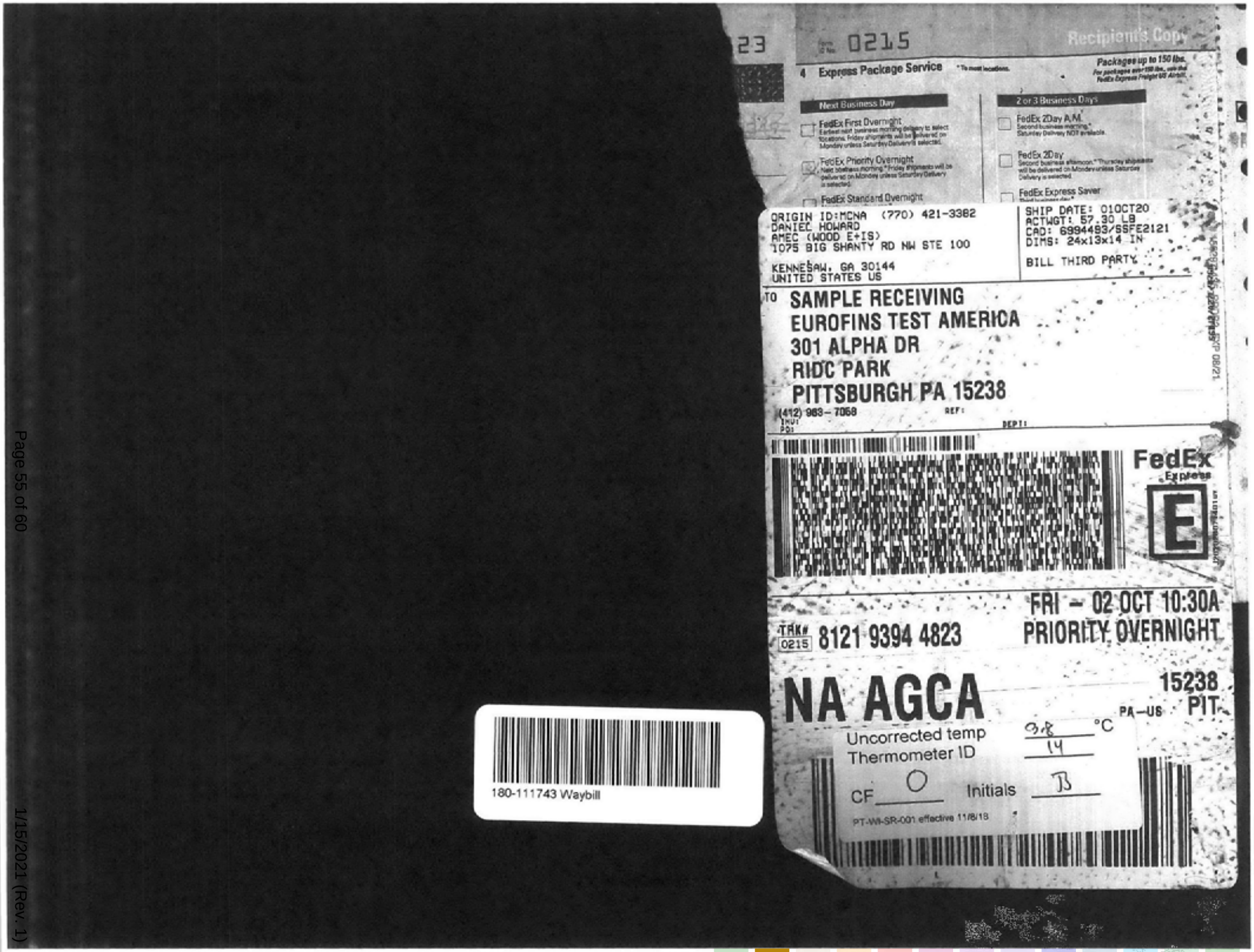

Do Not Lift Using This Tag
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 29SEP20
ACTWGT: 59.45 LB
CAD: 6884483/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC
PITT
(412) 963-
INV:
PO:
180-111645 Waybill
FedEx
Express
TRK# 0215 8121 9394 4889
WED - 30 SEP 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
PA-US
NA AGCA
Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JJ
PT-WI-SR-001 effective 11/8/18
RT 97
1
10:30
A
4889
09.30
FZ

TRK# 8121 9394 4856
WED - 30 SEP 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
PA-US
NA AGCA
BILL THIRD PARTY
DIMS: 24x13x14 IN
ACTWGT: 57.25 LB
Other
FedEx Tube

NA AGCA
Uncorrected temp
Thermometer ID
Initials
PT-WI-SR-001 effective 11/8/18
WED - 30 SEP 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
PA-US
TRK# 8121 9394 4867
SAMPLE RECEIVING
EUROFINS TEST AMERIC
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 29SEP20
ACTWGT: 56.30 LB
CAD: 6894493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY
fedex.com
Express Package Service
Next Business Day
2 or 3 Business Days
Recipients Copy


SHIP DATE: 30SEP20
ACTWGT: 57.65 LB
SAMPLE RECEIVING
EUROFINS TEST AME
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
FedEx
Express
TRK# 0215 8121 9394 4801
THU - 01 OCT 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
NA AGCA
PA-US
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18


180-111689 Waybill


23
0215
Recipient's Copy
4 Express Package Service
Packages up to 150 lbs.
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Standard Overnight
2 or 3 Business Days
FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 01OCT20
ACTWGT: 57.30 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF:
DEPT:
FedEx Express
TRK# 0215 8121 9394 4823
FRI - 02 OCT 10:30A
PRIORITY OVERNIGHT
NA AGCA
15238
PIT
PA-US
Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0
Initials JB
PT-WI-SR-001 effective 11/8/18
180-111743 Waybill

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111645
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111646
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111647
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111689
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-1

Login Number: 111743
List Number: 1
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-111645-2
Client Project/Site: CCR - Plant Arkwright AP-3

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
11/23/2020 6:44:07 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Job ID: 180-111645-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-111645-2

Comments
No additional comments.

Receipt
The samples were received on 9/30/2020 9:00 AM, 10/1/2020 9:00 AM and 10/2/2020 9:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.1º C, 2.7º C, 3.4º C, 3.8º C and 3.8º C.

RAD
Methods 903.0, 9315: Ra-226 prep batch 160-484743:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
EB-01 (180-111689-1), ARAMW-4 (180-111689-2), ARAMW-3 (180-111689-3), ARGWC-18 (180-111689-4), (LCS 160-484743/1-A) and (MB 160-484743/24-A)

Methods 903.0, 9315: Radium-226 prep batch 160-485335:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
ARGWC-10 (180-111743-1), ARGWC-9 (180-111743-2), ARAMW-6 (180-111743-3), ARGWC-8 (180-111743-4), (LCS 160-485335/1-A) and (MB 160-485335/22-A)

Method 9315: Radium-226 Prep Batch 160-485173:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-5 (180-111645-1), ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3)

Methods 904.0, 9320: Radium-228 prep batch 160-484744:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.
Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
EB-01 (180-111689-1), ARAMW-4 (180-111689-2), ARAMW-3 (180-111689-3), ARGWC-18 (180-111689-4), (LCS 160-484744/1-A) and (MB 160-484744/24-A)

Methods 904.0, 9320: Radium-228 prep batch 160-485338:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
ARGWC-10 (180-111743-1), ARGWC-9 (180-111743-2), ARAMW-6 (180-111743-3), ARGWC-8 (180-111743-4), (LCS 160-485338/1-A) and (MB 160-485338/22-A)

Method 9320: 9320 prep batch 160-485176
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.
ARGWA-5 (180-111645-1), ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3)

Job ID: 180-111645-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

Method PrecSep_0: Radium 228 Prep Batch 160-485176:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-111645-1), ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-485173:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-5 (180-111645-1), ARGWA-3 (180-111645-2), ARGWC-7 (180-111645-3), ARGWC-16 (180-111645-4), ARGWA-14 (180-111646-1), ARGWC-15 (180-111646-2), ARGWC-17 (180-111646-3), DUP-01 (180-111646-4), FB-01 (180-111647-1), ARGWA-12 (180-111647-2) and ARGWA-13 (180-111647-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Job ID: 180-111645-2
Project/Site: CCR - Plant Arkwright AP-3

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Job ID: 180-111645-2
Project/Site: CCR - Plant Arkwright AP-3

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	12-01-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-111645-1	ARGWA-5	Water	09/29/20 10:50	09/30/20 09:00	
180-111645-2	ARGWA-3	Water	09/29/20 12:25	09/30/20 09:00	
180-111645-3	ARGWC-7	Water	09/29/20 14:15	09/30/20 09:00	
180-111645-4	ARGWC-16	Water	09/29/20 15:40	09/30/20 09:00	
180-111646-1	ARGWA-14	Water	09/29/20 10:35	09/30/20 09:00	
180-111646-2	ARGWC-15	Water	09/29/20 13:05	09/30/20 09:00	
180-111646-3	ARGWC-17	Water	09/29/20 14:55	09/30/20 09:00	
180-111646-4	DUP-01	Water	09/29/20 00:00	09/30/20 09:00	
180-111647-1	FB-01	Water	09/29/20 09:45	09/30/20 09:00	
180-111647-2	ARGWA-12	Ground Water	09/29/20 11:27	09/30/20 09:00	
180-111647-3	ARGWA-13	Water	09/29/20 13:30	09/30/20 09:00	
180-111689-1	EB-01	Water	09/30/20 09:05	10/01/20 09:00	
180-111689-2	ARAMW-4	Water	09/30/20 12:40	10/01/20 09:00	
180-111689-3	ARAMW-3	Water	09/30/20 16:45	10/01/20 09:00	
180-111689-4	ARGWC-18	Water	09/30/20 16:15	10/01/20 09:00	
180-111743-1	ARGWC-10	Water	10/01/20 11:00	10/02/20 09:00	
180-111743-2	ARGWC-9	Water	10/01/20 14:50	10/02/20 09:00	
180-111743-3	ARAMW-6	Water	10/01/20 14:55	10/02/20 09:00	
180-111743-4	ARGWC-8	Water	10/01/20 11:00	10/02/20 09:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-5
Date Collected: 09/29/20 10:50
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.87 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489823	11/20/20 17:01	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.87 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-3
Date Collected: 09/29/20 12:25
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.98 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489823	11/20/20 17:01	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			999.98 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-7
Date Collected: 09/29/20 14:15
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.81 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489920	11/21/20 15:49	CMM	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.81 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-16
Date Collected: 09/29/20 15:40
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.74 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489920	11/21/20 15:49	CMM	TAL SL
	Instrument ID: GFPCRED									

Client Sample ID: ARGWC-16

Lab Sample ID: 180-111645-4

Date Collected: 09/29/20 15:40

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.74 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:46	FLC	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-14

Lab Sample ID: 180-111646-1

Date Collected: 09/29/20 10:35

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.80 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489920	11/21/20 15:49	CMM	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.80 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:47	FLC	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-15

Lab Sample ID: 180-111646-2

Date Collected: 09/29/20 13:05

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.80 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:53	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.80 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489473	11/17/20 12:47	FLC	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-17

Lab Sample ID: 180-111646-3

Date Collected: 09/29/20 14:55

Matrix: Water

Date Received: 09/30/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.12 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:53	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.12 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-17
Date Collected: 09/29/20 14:55
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL

Client Sample ID: DUP-01
Date Collected: 09/29/20 00:00
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.85 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.85 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: FB-01
Date Collected: 09/29/20 09:45
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.32 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.32 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-12
Date Collected: 09/29/20 11:27
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.10 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			999.10 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-13
Date Collected: 09/29/20 13:30
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.24 mL	1.0 g	485173	10/09/20 07:26	AVB	TAL SL
Total/NA	Analysis	9315		1			489922	11/21/20 15:54	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			999.24 mL	1.0 g	485176	10/09/20 08:02	AVB	TAL SL
Total/NA	Analysis	9320		1			489416	11/17/20 12:49	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			489999	11/23/20 15:36	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: EB-01
Date Collected: 09/30/20 09:05
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.39 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:53	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.39 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:56	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-4
Date Collected: 09/30/20 12:40
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.95 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:53	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.95 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:57	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-3
Date Collected: 09/30/20 16:45
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.88 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:53	SCB	TAL SL
	Instrument ID: GFPCRED									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARAMW-3
Date Collected: 09/30/20 16:45
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.88 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:57	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-18
Date Collected: 09/30/20 16:15
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.81 mL	1.0 g	484743	10/06/20 11:14	AVB	TAL SL
Total/NA	Analysis	9315		1			487030	10/28/20 12:54	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.81 mL	1.0 g	484744	10/06/20 11:57	AVB	TAL SL
Total/NA	Analysis	9320		1			485907	10/15/20 12:57	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			487752	11/02/20 19:09	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-10
Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.03 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:20	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.03 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-9
Date Collected: 10/01/20 14:50
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.83 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:20	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.83 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-9
Date Collected: 10/01/20 14:50
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL

Client Sample ID: ARAMW-6
Date Collected: 10/01/20 14:55
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.26 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:23	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.26 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-8
Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.18 mL	1.0 g	485335	10/13/20 08:06	AVB	TAL SL
Total/NA	Analysis	9315		1			488215	11/04/20 10:23	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			999.18 mL	1.0 g	485338	10/13/20 08:31	AVB	TAL SL
Total/NA	Analysis	9320		1			487365	10/30/20 11:48	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			490000	11/23/20 15:38	SCB	TAL SL
	Instrument ID: NOEQUIP									

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

Batch Type: Analysis

CMM = Chelsea Mazariegos

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-5

Date Collected: 09/29/20 10:50
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0786	U	0.0999	0.100	1.00	0.239	pCi/L	10/09/20 07:26	11/20/20 17:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*67.5*		*40 - 110*	*10/09/20 07:26*	*11/20/20 17:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0678	U	0.291	0.291	1.00	0.539	pCi/L	10/09/20 08:02	11/17/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*67.5*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*
Y Carrier	*80.0*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.146	U	0.308	0.308	5.00	0.539	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-3
Date Collected: 09/29/20 12:25
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0686	U	0.0753	0.0756	1.00	0.184	pCi/L	10/09/20 07:26	11/20/20 17:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*10/09/20 07:26*	*11/20/20 17:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0207	U	0.268	0.268	1.00	0.477	pCi/L	10/09/20 08:02	11/17/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*
Y Carrier	*76.3*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0479	U	0.278	0.278	5.00	0.477	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-7

Date Collected: 09/29/20 14:15
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0786	U	0.0859	0.0862	1.00	0.137	pCi/L	10/09/20 07:26	11/21/20 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.256	U	0.276	0.277	1.00	0.451	pCi/L	10/09/20 08:02	11/17/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*
Y Carrier	*76.6*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.334	U	0.289	0.290	5.00	0.451	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-16
Date Collected: 09/29/20 15:40
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111645-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.129	U	0.130	0.130	1.00	0.207	pCi/L	10/09/20 07:26	11/21/20 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.153	U	0.236	0.237	1.00	0.460	pCi/L	10/09/20 08:02	11/17/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*
Y Carrier	*75.1*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0246	U	0.269	0.270	5.00	0.460	pCi/L		11/23/20 15:36	1

Client Sample ID: ARGWA-14

Date Collected: 09/29/20 10:35
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.0989	0.0993	1.00	0.149	pCi/L	10/09/20 07:26	11/21/20 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.4*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0259	U	0.287	0.287	1.00	0.511	pCi/L	10/09/20 08:02	11/17/20 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.4*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:47*	*1*
Y Carrier	*78.5*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.134	U	0.304	0.304	5.00	0.511	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-15
Date Collected: 09/29/20 13:05
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0832	U	0.115	0.115	1.00	0.194	pCi/L	10/09/20 07:26	11/21/20 15:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.311	U	0.290	0.292	1.00	0.469	pCi/L	10/09/20 08:02	11/17/20 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:47*	*1*
Y Carrier	*84.1*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.394	U	0.312	0.314	5.00	0.469	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-17
Date Collected: 09/29/20 14:55
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.138	U	0.116	0.117	1.00	0.176	pCi/L	10/09/20 07:26	11/21/20 15:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0374	U	0.259	0.259	1.00	0.457	pCi/L	10/09/20 08:02	11/17/20 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*
Y Carrier	*82.6*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.175	U	0.284	0.284	5.00	0.457	pCi/L		11/23/20 15:36	1

Client Sample ID: DUP-01
Date Collected: 09/29/20 00:00
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111646-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.205**		0.133	0.134	1.00	0.186	pCi/L	10/09/20 07:26	11/21/20 15:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0195	U	0.234	0.234	1.00	0.418	pCi/L	10/09/20 08:02	11/17/20 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*
Y Carrier	*84.5*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.225	U	0.269	0.270	5.00	0.418	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: FB-01

Date Collected: 09/29/20 09:45
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0230	U	0.0753	0.0754	1.00	0.160	pCi/L	10/09/20 07:26	11/21/20 15:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.341	U	0.275	0.277	1.00	0.437	pCi/L	10/09/20 08:02	11/17/20 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*
Y Carrier	*82.2*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.318	U	0.285	0.287	5.00	0.437	pCi/L		11/23/20 15:36	1

Client Sample ID: ARGWA-12

Date Collected: 09/29/20 11:27
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-2

Matrix: Ground Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.205		0.121	0.122	1.00	0.156	pCi/L	10/09/20 07:26	11/21/20 15:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.9*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.559		0.294	0.298	1.00	0.436	pCi/L	10/09/20 08:02	11/17/20 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.9*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*
Y Carrier	*81.5*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.765		0.318	0.322	5.00	0.436	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWA-13
Date Collected: 09/29/20 13:30
Date Received: 09/30/20 09:00

Lab Sample ID: 180-111647-3
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0914	U	0.122	0.122	1.00	0.204	pCi/L	10/09/20 07:26	11/21/20 15:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*10/09/20 07:26*	*11/21/20 15:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.312	U	0.267	0.269	1.00	0.425	pCi/L	10/09/20 08:02	11/17/20 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*
Y Carrier	*82.2*		*40 - 110*	*10/09/20 08:02*	*11/17/20 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.403	U	0.294	0.295	5.00	0.425	pCi/L		11/23/20 15:36	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: EB-01

Date Collected: 09/30/20 09:05
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0216	U	0.0469	0.0470	1.00	0.0862	pCi/L	10/06/20 11:14	10/28/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*10/06/20 11:14*	*10/28/20 12:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.210	U	0.254	0.255	1.00	0.420	pCi/L	10/06/20 11:57	10/15/20 12:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:56*	*1*
Y Carrier	*73.6*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:56*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.231	U	0.258	0.259	5.00	0.420	pCi/L		11/02/20 19:09	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARAMW-4

Date Collected: 09/30/20 12:40
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.146**		0.0763	0.0775	1.00	0.0924	pCi/L	10/06/20 11:14	10/28/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*10/06/20 11:14*	*10/28/20 12:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.386	U	0.313	0.315	1.00	0.497	pCi/L	10/06/20 11:57	10/15/20 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:57*	*1*
Y Carrier	*73.3*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.532**		0.322	0.324	5.00	0.497	pCi/L		11/02/20 19:09	1

Client Sample ID: ARAMW-3

Date Collected: 09/30/20 16:45
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0603	U	0.0669	0.0672	1.00	0.107	pCi/L	10/06/20 11:14	10/28/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.6*		*40 - 110*	*10/06/20 11:14*	*10/28/20 12:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.479	U	0.394	0.397	1.00	0.628	pCi/L	10/06/20 11:57	10/15/20 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.6*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:57*	*1*
Y Carrier	*75.1*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.539	U	0.400	0.403	5.00	0.628	pCi/L		11/02/20 19:09	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-18

Date Collected: 09/30/20 16:15
Date Received: 10/01/20 09:00

Lab Sample ID: 180-111689-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0870	U	0.0661	0.0666	1.00	0.0925	pCi/L	10/06/20 11:14	10/28/20 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.7*		*40 - 110*	*10/06/20 11:14*	*10/28/20 12:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00594	U	0.287	0.287	1.00	0.518	pCi/L	10/06/20 11:57	10/15/20 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.7*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:57*	*1*
Y Carrier	*74.8*		*40 - 110*	*10/06/20 11:57*	*10/15/20 12:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0811	U	0.295	0.295	5.00	0.518	pCi/L		11/02/20 19:09	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-10

Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.114	U	0.119	0.120	1.00	0.191	pCi/L	10/13/20 08:06	11/04/20 10:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.5*		*40 - 110*	*10/13/20 08:06*	*11/04/20 10:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0586	U	0.341	0.342	1.00	0.606	pCi/L	10/13/20 08:31	10/30/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.5*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*
Y Carrier	*71.8*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.172	U	0.361	0.362	5.00	0.606	pCi/L		11/23/20 15:38	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-9

Date Collected: 10/01/20 14:50
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0570	U	0.0732	0.0734	1.00	0.122	pCi/L	10/13/20 08:06	11/04/20 10:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*10/13/20 08:06*	*11/04/20 10:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.444	U	0.298	0.301	1.00	0.456	pCi/L	10/13/20 08:31	10/30/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*
Y Carrier	*72.9*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.501**		0.307	0.310	5.00	0.456	pCi/L		11/23/20 15:38	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARAMW-6

Date Collected: 10/01/20 14:55
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0541	U	0.0684	0.0686	1.00	0.113	pCi/L	10/13/20 08:06	11/04/20 10:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*10/13/20 08:06*	*11/04/20 10:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0427	U	0.255	0.255	1.00	0.464	pCi/L	10/13/20 08:31	10/30/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*
Y Carrier	*77.0*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0114	U	0.264	0.264	5.00	0.464	pCi/L		11/23/20 15:38	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

Client Sample ID: ARGWC-8

Date Collected: 10/01/20 11:00
Date Received: 10/02/20 09:00

Lab Sample ID: 180-111743-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.229		0.107	0.109	1.00	0.114	pCi/L	10/13/20 08:06	11/04/20 10:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*40 - 110*	*10/13/20 08:06*	*11/04/20 10:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.283	U	0.333	0.334	1.00	0.549	pCi/L	10/13/20 08:31	10/30/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*
Y Carrier	*75.9*		*40 - 110*	*10/13/20 08:31*	*10/30/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.512	U	0.350	0.351	5.00	0.549	pCi/L		11/23/20 15:38	1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-484743/24-A
Matrix: Water
Analysis Batch: 487030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 484743

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1797		0.0967	0.0981	1.00	0.112	pCi/L	10/06/20 11:14	10/28/20 14:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.2*		*40 - 110*	*10/06/20 11:14*	*10/28/20 14:42*	*1*

Lab Sample ID: LCS 160-484743/1-A
Matrix: Water
Analysis Batch: 487030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 484743

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	14.45		1.49	1.00	0.118	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*85.2*		*40 - 110*

Lab Sample ID: MB 160-485173/22-A
Matrix: Water
Analysis Batch: 489921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485173

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03423	U	0.0848	0.0849	1.00	0.158	pCi/L	10/09/20 07:27	11/21/20 15:55	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*10/09/20 07:27*	*11/21/20 15:55*	*1*

Lab Sample ID: LCS 160-485173/1-A
Matrix: Water
Analysis Batch: 489824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485173

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.43		1.10	1.00	0.182	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*74.0*		*40 - 110*

Lab Sample ID: LCSD 160-485173/2-A
Matrix: Water
Analysis Batch: 489824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485173

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	10.04		1.05	1.00	0.182	pCi/L	88	75 - 125	0.18	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-485173/2-A
Matrix: Water
Analysis Batch: 489824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485173

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	83.1		40 - 110

Lab Sample ID: MB 160-485335/22-A
Matrix: Water
Analysis Batch: 488215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485335

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01934	U	0.0606	0.0606	1.00	0.116	pCi/L	10/13/20 08:06	11/04/20 12:24	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		40 - 110	10/13/20 08:06	11/04/20 12:24	1

Lab Sample ID: LCS 160-485335/1-A
Matrix: Water
Analysis Batch: 488215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485335

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.598		1.05	1.00	0.120	pCi/L	85	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.6		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-484744/24-A
Matrix: Water
Analysis Batch: 485729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 484744

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1025	U	0.357	0.357	1.00	0.624	pCi/L	10/06/20 11:57	10/15/20 12:51	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.2		40 - 110	10/06/20 11:57	10/15/20 12:51	1
Y Carrier	79.3		40 - 110	10/06/20 11:57	10/15/20 12:51	1

Lab Sample ID: LCS 160-484744/1-A
Matrix: Water
Analysis Batch: 485907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 484744

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.3	10.33		1.33	1.00	0.594	pCi/L	100	75 - 125		

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-484744/1-A
Matrix: Water
Analysis Batch: 485907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 484744

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.2		40 - 110
Y Carrier	80.0		40 - 110

Lab Sample ID: MB 160-485176/22-A
Matrix: Water
Analysis Batch: 489416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485176

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2566	U	0.204	0.205	1.00	0.414	pCi/L	10/09/20 08:02	11/17/20 12:49	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110	10/09/20 08:02	11/17/20 12:49	1
Y Carrier	81.9		40 - 110	10/09/20 08:02	11/17/20 12:49	1

Lab Sample ID: LCS 160-485176/1-A
Matrix: Water
Analysis Batch: 489473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485176

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.65	7.199		0.976	1.00	0.568	pCi/L	94	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	74.0		40 - 110
Y Carrier	81.9		40 - 110

Lab Sample ID: LCSD 160-485176/2-A
Matrix: Water
Analysis Batch: 489473

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485176

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.65	7.109		0.946	1.00	0.518	pCi/L	93	75 - 125	0.05	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	83.1		40 - 110
Y Carrier	78.1		40 - 110

Lab Sample ID: MB 160-485338/22-A
Matrix: Water
Analysis Batch: 487365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485338

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1071	U	0.271	0.272	1.00	0.469	pCi/L	10/13/20 08:31	10/30/20 11:50	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-485338/22-A
Matrix: Water
Analysis Batch: 487365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485338

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		40 - 110	10/13/20 08:31	10/30/20 11:50	1
Y Carrier	78.5		40 - 110	10/13/20 08:31	10/30/20 11:50	1

Lab Sample ID: LCS 160-485338/1-A
Matrix: Water
Analysis Batch: 487365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485338

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.69	8.484		1.07	1.00	0.497	pCi/L	110	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.6		40 - 110
Y Carrier	77.8		40 - 110

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Prep Batch: 484743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total/NA	Water	PrecSep-21	
180-111689-2	ARAMW-4	Total/NA	Water	PrecSep-21	
180-111689-3	ARAMW-3	Total/NA	Water	PrecSep-21	
180-111689-4	ARGWC-18	Total/NA	Water	PrecSep-21	
MB 160-484743/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-484743/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 484744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111689-1	EB-01	Total/NA	Water	PrecSep_0	
180-111689-2	ARAMW-4	Total/NA	Water	PrecSep_0	
180-111689-3	ARAMW-3	Total/NA	Water	PrecSep_0	
180-111689-4	ARGWC-18	Total/NA	Water	PrecSep_0	
MB 160-484744/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-484744/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 485173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	PrecSep-21	
180-111645-2	ARGWA-3	Total/NA	Water	PrecSep-21	
180-111645-3	ARGWC-7	Total/NA	Water	PrecSep-21	
180-111645-4	ARGWC-16	Total/NA	Water	PrecSep-21	
180-111646-1	ARGWA-14	Total/NA	Water	PrecSep-21	
180-111646-2	ARGWC-15	Total/NA	Water	PrecSep-21	
180-111646-3	ARGWC-17	Total/NA	Water	PrecSep-21	
180-111646-4	DUP-01	Total/NA	Water	PrecSep-21	
180-111647-1	FB-01	Total/NA	Water	PrecSep-21	
180-111647-2	ARGWA-12	Total/NA	Ground Water	PrecSep-21	
180-111647-3	ARGWA-13	Total/NA	Water	PrecSep-21	
MB 160-485173/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-485173/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-485173/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 485176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111645-1	ARGWA-5	Total/NA	Water	PrecSep_0	
180-111645-2	ARGWA-3	Total/NA	Water	PrecSep_0	
180-111645-3	ARGWC-7	Total/NA	Water	PrecSep_0	
180-111645-4	ARGWC-16	Total/NA	Water	PrecSep_0	
180-111646-1	ARGWA-14	Total/NA	Water	PrecSep_0	
180-111646-2	ARGWC-15	Total/NA	Water	PrecSep_0	
180-111646-3	ARGWC-17	Total/NA	Water	PrecSep_0	
180-111646-4	DUP-01	Total/NA	Water	PrecSep_0	
180-111647-1	FB-01	Total/NA	Water	PrecSep_0	
180-111647-2	ARGWA-12	Total/NA	Ground Water	PrecSep_0	
180-111647-3	ARGWA-13	Total/NA	Water	PrecSep_0	
MB 160-485176/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-485176/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-485176/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-111645-2

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Prep Batch: 485335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	PrecSep-21	
180-111743-2	ARGWC-9	Total/NA	Water	PrecSep-21	
180-111743-3	ARAMW-6	Total/NA	Water	PrecSep-21	
180-111743-4	ARGWC-8	Total/NA	Water	PrecSep-21	
MB 160-485335/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-485335/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 485338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-111743-1	ARGWC-10	Total/NA	Water	PrecSep_0	
180-111743-2	ARGWC-9	Total/NA	Water	PrecSep_0	
180-111743-3	ARAMW-6	Total/NA	Water	PrecSep_0	
180-111743-4	ARGWC-8	Total/NA	Water	PrecSep_0	
MB 160-485338/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-485338/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

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Chain of Custody Record 244- ATLANTA

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Client Information	Sampler: DHoward, EGuilen, AShoreditch	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 3
Company: Southern Company		Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: Standard			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			Other:
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefol, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	ND	ND		
ARGWA-5	9/29/20	1050	G	W			X	X	X	X	X	X		pH=6.00
ARGWA-3		1225	G	W			X	X	X	X	X	X		pH=6.02
ARGWC-7		1415	G	W			X	X	X	X	X	X		pH=5.92
ARGWC-16		1540	G	W			X	X	X	X	X	X		pH=5.50

180-111645 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	9/29/20/1745	Wood	Shellie Waters	9-30-20	FTAPitt
				9:00	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: DHoward, EGullen, ASheedits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 3
Company: Southern Company		Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: standard			Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	D	N	N	XD	XD	X	
ARGWA-14	9/29/20	1035	G	W			X	X	X	X	X	X		pH=6.80
ARGWC-15		1305	G	W			X	X	X	X	X	X		pH=7.11
~~ARGWC-17~~ ARGWC-17		1455	G	W			X	X	X	X	X	X		pH=5.75
DUP-01		—	G	W			X	X	X	X	X	X		pH=5.75

180-111646 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	9/29/20 1745	Wood	[signature]	9-30-20 900	EAP 17
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: D Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 3
Company: Southern Company				Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: Standard			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone:	PO #: GPC11084570			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	XD	XD		
FB-01	9/29/20	0945	G	W			X	X	X	X	X	X		
ARGWA-12	↓	1127	G	W			X	X	X	X	X	X		pH=5.88
ARGWA-13	↓	1330	G	W			X	X	X	X	X	X		pH=5.75

180-111647 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: David Howard	Date/Time: 9/29/20 / 1745	Company: Wood	Received by:	Date/Time: 9-30-20 9:00	Company:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record 244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: EGuillen, AShoreditis	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.2
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page 1 of 1
Company: Southern Company				Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: Standard	Analysis Requested		Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			Other:
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	6020B - Custom 15 (App III/IV (Diss)) *	7470A - Hg (Diss) *	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	MD	MD	D	D		
EB-01	9/30/20	0905	G	W			X	X	X	X	X	X			3	
ARAMW-4		1240	G	W			X	X	X	X	X	X			3	pH = 5.94
ARAMW-3		1645	G	W			X	X	X	X	X	X			3	pH = 6.41
ARGWC-18	↓	1615	G	W	X		X	X	X	X	X	X	X	X	4	pH = 5.98

180-111689 Chain of Custody

* Lab will Filter dissolved metals sample

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	9/30/20/ 1815		Willie Watson	10-1-20	EARTH
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9:00	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record 244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: E Gwillen, A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-64149-11995.2
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com		Page: Page ~~2 of 3~~
Company: Southern Company				Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested: standard			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Radium 226	6020B - Custom 15 (App III/AppIV + Silver)	300_ORGFM_28D - Chloride Fluoride Sulfate	2540C_Calcd - Total Dissolved Solids	9320_Ra228 - Radium 228	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	~~X~~ D	~~X~~ D		
ARGWC-10	10/1/20	1100	G	W			X	X	X	X	X	X	3	pH=5.83
ARGWC-9		1450	G	W			X	X	X	X	X	X	3	pH=5.78
ARAMW-6		1455	G	W			X	X	X	X	X	X	3	pH=6.37
ARGWC-8		1100	G	W			X	X	X	X	X	X	3	pH=6.44

180-111743 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	David Howard	10/1/20/1820	Wood		10/2/20 930	
2						
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 29SEP20
ACTWGT: 59.45 LB
CAD: 6884483/SSFE2121
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC
PITT
(412) 963-
INV:
PO:

180-111645 Waybill

FedEx Express

WED - 30 SEP 10:30A
PRIORITY OVERNIGHT

TRK# 0215 8121 9394 4889

DSR
15238
PIT

NA AGCA

PA-US

Uncorrected temp 3.8 °C
Thermometer ID 14

CF 0 Initials JJ

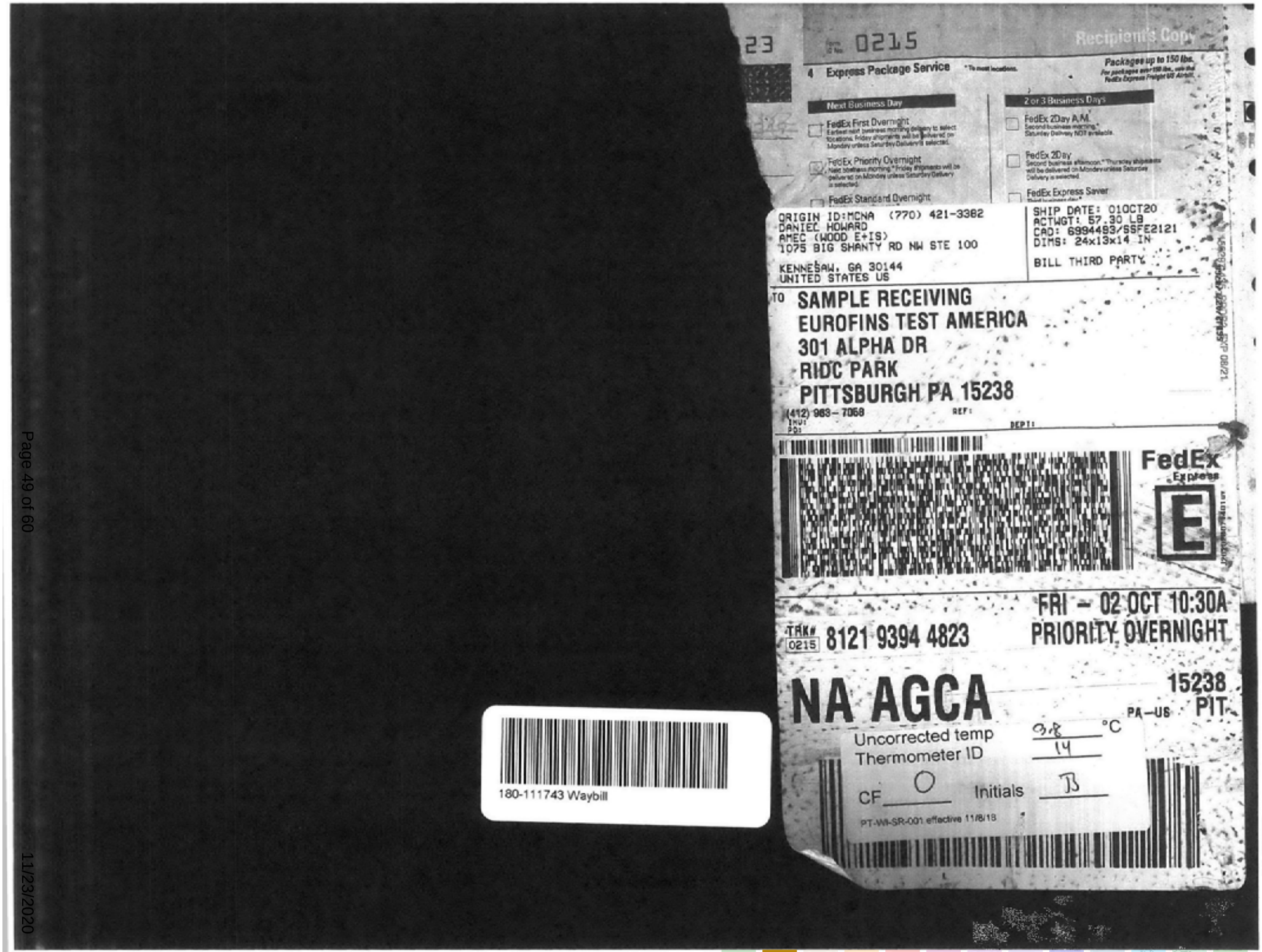
PT-WI-SR-001 effective 11/8/18

RT 97 1 A
10:30 4889
09.30
FZ

NA AGCA
PA-US PIT
15238
DSR
PRIORITY OVERNIGHT
WED - 30 SEP 10:30A
TRK# 0215 8121 9394 4856
BILL THIRD PARTY
DIMS: 24x13x14 IN
ACTWGT: 57.25 LB
FedEx Tube
Other

NA AGCA
Uncorrected temp
Thermometer ID
Initials
PT-WI-SR-001 effective 11/8/18
TRK# 8121 9394 4867
WED - 30 SEP 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
PA-US
SAMPLE RECEIVING
EUROFINS TEST AMERIC
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 29SEP20
ACTWGT: 56.30 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY
fedex.com
Express Package Service
Next Business Day
2 or 3 Business Days
Recipient's Copy


SHIP DATE: 30SEP20
ACTWGT: 57.65 LB
SAMPLE RECEIVING
EUROFINS TEST AME
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
FedEx
Express
TRK# 0215 8121 9394 4801
THU - 01 OCT 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
NA AGCA
PA-US
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18
180-111689 Waybill


23
0215
Recipient's Copy
4 Express Package Service
Packages up to 150 lbs.
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Standard Overnight
2 or 3 Business Days
FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 01OCT20
ACTWGT: 57.30 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF:
DEPT:
FedEx Express
TRK# 0215 8121 9394 4823
FRI - 02 OCT 10:30A
PRIORITY OVERNIGHT
NA AGCA
15238
PIT
PA-US
Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JB
PT-WI-SR-001 effective 11/8/18
180-111743 Waybill

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-413466.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin: Georgia	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-111645-2
Address: 13715 Rider Trail North,	Due Date Requested: 11/2/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Arkwright	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - Di Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium 228	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
ARGWA-5 (180-111645-1)	9/29/20	10:50 Eastern		Water			X	X	X	1	
ARGWA-3 (180-111645-2)	9/29/20	12:25 Eastern		Water			X	X	X	1	
ARGWC-7 (180-111645-3)	9/29/20	14:15 Eastern		Water			X	X	X	1	
ARGWC-16 (180-111645-4)	9/29/20	15:40 Eastern		Water			X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Matthew Jacobs	10/1/20 1700	ETA PHL	FedEx		
Relinquished by: FedEx	Date/Time:	Company	Received by:	Date/Time: 10/2/20 09:22	Company ETA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111645
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111645
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 10/03/20 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111646
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111646
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 10/03/20 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111647
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111647
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 10/03/20 12:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111689
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111689
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 10/03/20 06:58 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111743
List Number: 1
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-111645-2

Login Number: 111743
List Number: 2
Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis
List Creation: 10/08/20 06:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Georgia Power Site Sampling Data (GW)

Site Name: Plant Arkwright AP3

Date: 9/29/20 - 10/1/20

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
FB-01	9/29/20	0945	FB-01			Field Blank For Ash Pond 3
ARGWA-12	9/29/20	1127				
ARGWA-13	9/29/20	1330				
ARGWA-5	9/29/20	1050				
ARGWA-3	9/29/20	1225				
ARGWC-7	9/29/20	1415				
ARGWC-16	9/29/20	1540				
ARGWA-14	9/29/20	1035				
ARGWC-15	9/29/20	1305				
ARGWC-17	9/29/20	1455				
DUP-01	9/29/20	—			DUP-01	Duplicate of ARGWC-17 (DUP-01)
EB-01	9/30/20	0905		EB-01		Equip Blank of QED Sample Pro Bladder Pump
ARAMW-4	9/30/20	1240				
ARAMW-3	9/30/20	1645				
ARGWC-18	9/30/20	1615				
ARGWC-10	10/1/20	1100				
ARGWC-9	10/1/20	1450				
ARAMW-6	10/1/20	1455				
ARGWC-8	10/1/20	1100				

Additional comments: Field Blank FB-01 was taken at Ash Pond 3 using ASTM Type I deionized water (7732-18-5). Equip blank EB-01 was collected from the QED Sample Pro Bladder Pump ID# 8655 using ASTM Type I deionized water (7732-18-5).

Product Name: Low-Flow System

Date: 2020-09-29 12:24:12

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	0.17 in
Site Name	ARGWA-3	Tubing Length	40.5
ftLatitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	613229		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	35.5 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-3	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6607687 L
Well Total Depth	40.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	34.63 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:01:46	1500.03	19.16	6.04	88.19	12.20	34.92	6.57	72.65
Last 5	12:06:46	1800.02	19.22	6.03	88.00	9.02	34.92	6.59	73.00
Last 5	12:11:46	2100.02	19.15	6.04	87.72	7.64	34.92	6.59	73.63
Last 5	12:16:46	2400.02	19.18	6.01	87.53	5.47	34.92	6.57	74.26
Last 5	12:21:46	2700.02	19.24	6.02	87.41	3.91	34.92	6.57	74.02
Variance 0			-0.08	0.00	-0.27			-0.00	0.63
Variance 1			0.03	-0.03	-0.19			-0.02	0.63
Variance 2			0.06	0.01	-0.12			0.00	-0.24

Notes

Sampled at

Sampled at 1225

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 11:28:58

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micropurge dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright CCR AP3	Tubing Diameter	.25 in
Site Name	ARGWA-12	Tubing Length	35.2 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-12	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8197761 L
Well Total Depth	35.2 ft	Calculated Sample Rate	300 sec
Screen Length	12 ft	Stabilization Drawdown	0.03 in
Depth to Water	15.11 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:05:39	600.02	19.65	5.89	194.55	7.59	15.62	3.41	83.79
Last 5	11:10:39	900.01	19.66	5.89	194.15	5.71	15.63	3.23	84.96
Last 5	11:15:39	1200.01	19.65	5.89	194.12	4.64	15.63	3.11	86.53
Last 5	11:20:39	1500.01	19.66	5.88	193.63	4.43	15.65	3.03	88.49
Last 5	11:25:39	1800.01	19.61	5.88	193.81	3.38	15.65	3.00	90.34
Variance 0			-0.00	0.00	-0.03			-0.11	1.57
Variance 1			0.01	-0.01	-0.49			-0.08	1.96
Variance 2			-0.05	-0.00	0.18			-0.04	1.85

Notes

ARGWA-12 sample time 1127

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 13:33:43

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micropurge dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright CCR AP3	Tubing Diameter	.25 in
Site Name	ARGWA-13	Tubing Length	43.3 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.3 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-13	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8979633 L
Well Total Depth	43.31 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	23.54 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:07:20	900.02	18.14	5.76	1188.42	1.53	23.86	1.35	112.76
Last 5	13:12:20	1200.01	18.14	5.76	1195.32	0.74	23.86	1.19	114.72
Last 5	13:17:20	1500.01	18.12	5.76	1196.76	0.44	23.87	1.08	116.10
Last 5	13:22:20	1800.01	18.10	5.76	1193.95	0.30	23.87	1.05	117.86
Last 5	13:27:20	2100.01	18.10	5.75	1188.34	0.24	23.88	1.05	119.50
Variance 0			-0.02	0.00	1.44			-0.11	1.38
Variance 1			-0.03	-0.00	-2.81			-0.03	1.76
Variance 2			-0.00	-0.00	-5.61			-0.00	1.64

Notes

ARGWA-13 sample time 1300

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 10:49:01

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	0.17 in
Site Name	ARGWA-5	Tubing Length	30.0 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	613229		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	25.0 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6139027 L
Well Total Depth	30.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	22.93 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:25:53	1200.03	18.70	6.01	0.09	1.49	23.11	6.27	92.33
Last 5	10:30:53	1500.03	18.71	6.01	0.09	1.08	23.11	6.14	86.79
Last 5	10:35:53	1800.02	18.73	6.01	0.09	1.44	23.11	6.04	83.12
Last 5	10:40:53	2100.02	18.73	6.01	0.09	0.85	23.11	6.02	80.59
Last 5	10:45:53	2400.02	18.70	6.00	0.09	0.58	23.11	6.01	80.35
Variance 0			0.02	0.00	0.00			-0.09	-3.67
Variance 1			-0.00	-0.01	-0.00			-0.03	-2.53
Variance 2			-0.02	-0.01	-0.00			-0.00	-0.24

Notes

Sampled at
1050

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 14:10:10

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-7	Tubing Length	50.20 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	613229		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	45.20 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.7040638 L
Well Total Depth	50.20 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	22.22 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:47:06	900.03	18.74	5.93	0.16	1.85	22.48	4.06	69.88
Last 5	13:52:06	1200.03	18.66	5.93	0.16	2.49	22.48	4.05	69.85
Last 5	13:57:06	1500.03	18.61	5.92	0.16	1.53	22.48	4.06	70.92
Last 5	14:02:06	1800.03	18.65	5.90	0.16	0.27	22.48	4.06	70.79
Last 5	14:07:06	2100.02	18.71	5.92	0.16	0.38	22.48	4.06	70.28
Variance 0			-0.05	-0.00	-0.00			0.01	1.07
Variance 1			0.04	-0.02	0.00			0.00	-0.14
Variance 2			0.06	0.01	0.00			-0.00	-0.50

Notes

Sampled at 1415

Grab Samples

Product Name: Low-Flow System

Date: 2020-10-01 14:47:14

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-9	Tubing Length	38.2 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	613229		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	33.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6505027 L
Well Total Depth	38.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	20.62 ft	Total Volume Pumped	19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:24:07	1500.02	20.39	5.79	79.17	9.56	20.88	6.59	88.28
Last 5	14:29:07	1800.02	20.48	5.80	79.07	7.62	20.88	6.62	87.52
Last 5	14:34:07	2100.02	20.48	5.79	79.13	6.01	20.88	6.59	88.96
Last 5	14:39:07	2400.02	20.48	5.77	79.13	4.86	20.88	6.59	88.47
Last 5	14:44:07	2700.01	20.53	5.78	79.16	3.43	20.88	6.57	87.94
Variance 0			0.00	-0.01	0.06			-0.03	1.45
Variance 1			0.00	-0.02	0.01			-0.00	-0.49
Variance 2			0.04	0.01	0.03			-0.02	-0.53

Notes

Sampled at 1450

Grab Samples

Product Name: Low-Flow System

Date: 2020-10-01 10:56:55

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-10	Tubing Length	38.35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	613229		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	33.35 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-10	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6511722 L
Well Total Depth	38.35 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	21.30 ft	Total Volume Pumped	16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:35:15	3600.01	19.27	5.84	104.44	10.60	21.58	4.40	81.97
Last 5	10:40:15	3900.01	19.24	5.83	104.30	8.38	21.58	4.39	81.51
Last 5	10:45:15	4200.00	19.28	5.81	104.25	6.02	21.58	4.36	81.60
Last 5	10:50:15	4500.00	19.32	5.82	104.57	4.64	21.58	4.37	81.17
Last 5	10:55:15	4800.00	19.37	5.83	103.94	3.91	21.58	4.36	80.26
Variance 0			0.05	-0.02	-0.05			-0.02	0.09
Variance 1			0.04	0.00	0.32			0.01	-0.43
Variance 2			0.05	0.01	-0.63			-0.02	-0.90

Notes

Sampled at 1100

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-29 15:37:58

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-16	Tubing Length	34.52 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	613229		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	29.52 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-16	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6340774 L
Well Total Depth	34.52 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	20.21 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:15:04	1200.03	18.91	5.50	498.15	0.53	20.38	0.58	89.60
Last 5	15:20:04	1500.03	18.95	5.48	497.95	0.57	20.38	0.58	90.13
Last 5	15:25:04	1800.02	18.92	5.49	497.63	0.39	20.38	0.59	88.03
Last 5	15:30:04	2100.02	18.88	5.50	497.16	0.34	20.38	0.58	87.21
Last 5	15:35:04	2400.02	18.83	5.50	496.46	0.21	20.38	0.58	86.73
Variance 0			-0.02	0.01	-0.32			0.00	-2.10
Variance 1			-0.04	0.01	-0.46			-0.01	-0.82
Variance 2			-0.05	0.00	-0.71			-0.00	-0.48

Notes

Sampled at 1540

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-30 16:14:15

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED dedicated
Company Name	WOOD	Tubing Type	HDPE
Project Name	Plant Arkwright CCR	Tubing Diameter	0.17 in
Site Name	ARGWC-18	Tubing Length	50.65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	613229		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	45.65 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-18	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.7060724 L
Well Total Depth	50.65 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	28.33 ft	Total Volume Pumped	40 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:50:22	8099.98	22.31	5.97	575.66	11.70	28.61	0.23	73.06
Last 5	15:55:22	8399.97	22.24	5.97	576.53	11.60	28.61	0.22	73.08
Last 5	16:00:22	8699.97	22.25	5.98	576.39	11.40	28.61	0.22	72.92
Last 5	16:05:38	9015.97	22.31	5.97	577.47	11.10	28.61	0.24	72.88
Last 5	16:10:38	9315.97	22.27	5.98	576.61	11.00	28.61	0.23	72.84
Variance 0			0.01	0.00	-0.14			-0.00	-0.15
Variance 1			0.06	-0.00	1.08			0.02	-0.04
Variance 2			-0.04	0.00	-0.87			-0.01	-0.04

Notes

Restart

Sampled at 1615

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-30 17:59:13

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED Sample Pro
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARAMW-3	Tubing Length	72 ft
Latitude	32° 55' 32.16"		
Longitude	-83° -42' -30.06"		
Sonde SN	642533		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	62 ft

Well Information:		Pumping Information:	
Well ID	ARAMW-3	Final Pumping Rate	170 mL/min
Well diameter	2.00 in	Total System Volume	0.5113665 L
Well Total Depth	67.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.2 in
Depth to Water	25.33 ft	Total Volume Pumped	19.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	16:17:23	6005.92	20.37	6.40	354.67	5.98	25.69	6.75	-3.54
Last 5	16:22:23	6305.91	20.35	6.41	353.13	5.40	25.70	6.68	-3.88
Last 5	16:27:23	6605.91	20.40	6.41	353.77	5.34	25.70	6.61	-3.56
Last 5	16:32:23	6905.90	20.34	6.40	355.32	5.10	25.70	6.63	-2.35
Last 5	16:37:23	7205.90	20.41	6.41	355.87	4.81	25.70	6.52	-2.62
Variance 0			0.04	0.01	0.64			-0.06	0.32
Variance 1			-0.05	-0.02	1.56			0.01	1.22
Variance 2			0.07	0.02	0.54			-0.11	-0.27

Notes

Start purging well @ 14:38, stop @ 16:37; Initial purge rate of 170 ml/min increased to 180 ml/min @ 14:48, to 175 ml/min @ 15:08, to 170 ml/min @ 15:43; Turbidity remained > 10 NTU up to 13.4 L purge and was < 6 NTU after 15.9 L; Water has sulfurous odor, fine silt sized particles, and small bubbles; Collect sample @ 16:45; pH during sampling is 6.41; Weather is sunny 72 degrees F

Product Name: Low-Flow System

Date: 2020-09-30 12:52:40

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED Sample Pro
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARAMW-4	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	642533		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	52 ft

Well Information:		Pumping Information:	
Well ID	ARAMW-4	Final Pumping Rate	180 mL/min
Well diameter	2.00 in	Total System Volume	0.4667322 L
Well Total Depth	57.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	21.48 ft	Total Volume Pumped	19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:15:54	5700.93	19.46	5.97	1568.76	5.24	21.44	7.48	2.40
Last 5	12:20:54	6000.92	19.50	5.96	1555.87	5.18	21.43	7.31	3.00
Last 5	12:25:54	6300.91	19.51	5.95	1565.35	4.70	21.44	7.21	3.82
Last 5	12:30:54	6600.91	19.53	5.94	1552.57	4.67	21.43	7.08	4.28
Last 5	12:35:54	6900.91	19.58	5.94	1541.98	4.84	21.43	6.98	4.87
Variance 0			0.00	-0.01	9.48			-0.10	0.82
Variance 1			0.02	-0.00	-12.78			-0.13	0.46
Variance 2			0.05	-0.00	-10.59			-0.10	0.59

Notes

Start purging well @ 10:41, stop @ 12:36; Initial purge rate of 170 ml/min increased to 190-210 ml/min @ 10:47, lowered to 180 ml/min @ 11:42; Water has strong sulfurous odor and silt sized grains visible in sample; Turbidity remained > 10 NTU until approximately 12 L purged; Collect sample @ 12:40; pH during sampling is 5.94; Weather is sunny 60 degrees F

Product Name: Low-Flow System

Date: 2020-10-01 15:14:15

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED Sample Pro
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARAMW-6	Tubing Length	37 ft
Latitude	32° 55' 31.57"		
Longitude	-83° -42' -29.55"		
Sonde SN	642533		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	27 ft

Well Information:		Pumping Information:	
Well ID	ARAMW-6	Final Pumping Rate	150 mL/min
Well diameter	2.00 in	Total System Volume	0.3551467 L
Well Total Depth	32.33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	13.43 ft	Total Volume Pumped	22.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:31:07	6901.91	21.39	6.37	361.45	5.58	13.87	0.21	9.08
Last 5	14:36:07	7201.90	21.38	6.37	360.62	5.22	13.87	0.22	9.86
Last 5	14:41:07	7501.90	21.32	6.37	361.00	4.87	13.87	0.22	10.02
Last 5	14:46:07	7801.89	21.38	6.37	360.27	4.70	13.87	0.22	10.36
Last 5	14:51:07	8101.88	21.37	6.37	359.69	4.74	13.87	0.21	10.61
Variance 0			-0.06	-0.00	0.37			-0.00	0.16
Variance 1			0.06	-0.00	-0.72			-0.00	0.34
Variance 2			-0.01	0.00	-0.58			-0.01	0.26

Notes

Start purging well @ 12:38, stop @ 14:51; Initial purge rate of 180 ml/min reduced to 175 ml/min @ 12:52, to 170 ml/min @ 13:12, to 160 ml/min @ 13:37, and to final purge rate of 150-155 ml/min @ 14:22; Turbidity remained near constant between 5 and 10 NTU after purging 8.5 L; Collect sample @ 14:55; pH during sample collection is 6.37; Weather is sunny 75 degrees F

Product Name: Low-Flow System

Date: 2020-09-29 10:47:19

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWA-14	Tubing Length	68 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	642533		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	53.45 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-14	Final Pumping Rate	80 mL/min
Well diameter	2.00 in	Total System Volume	0.7835128 L
Well Total Depth	58.45 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	58.8 in
Depth to Water	42.07 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:14:52	1800.00	19.76	6.88	255.40	0.95	46.21	6.54	46.20
Last 5	10:19:52	2100.00	19.78	6.84	242.42	0.74	46.72	6.30	46.38
Last 5	10:24:52	2399.99	19.77	6.82	232.46	0.88	47.32	6.06	46.30
Last 5	10:29:52	2699.98	19.76	6.81	224.74	0.82	47.75	5.89	46.17
Last 5	10:34:52	2999.98	19.73	6.80	218.85	0.85	48.31	5.76	46.00
Variance 0			-0.00	-0.02	-9.96			-0.24	-0.07
Variance 1			-0.01	-0.01	-7.72			-0.17	-0.13
Variance 2			-0.03	-0.01	-5.90			-0.13	-0.17

Notes

Start purging well @ 09:46, stop @ 10:34; Initial purge rate of 100 ml/min reduced to 80-85 ml/min @ 09:50; Significant drawdown could not be avoided and purge rate was lowered to only slightly below 100 ml/min; Collect sample @ 10:35; pH during sample collection is 6.80; Weather is cloudy with light rain 72 degrees F

Product Name: Low-Flow System

Date: 2020-10-01 11:15:02

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-8	Tubing Length	48 ft
Latitude	32° 55' 31.57"		
Longitude	-83° -42' -29.55"		
Sonde SN	642533		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.22 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-8	Final Pumping Rate	170 mL/min
Well diameter	2.00 in	Total System Volume	0.6942443 L
Well Total Depth	43.22 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	25.90 ft	Total Volume Pumped	11.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:36:34	2699.99	20.80	6.44	452.62	7.86	26.02	0.18	24.17
Last 5	10:41:34	2999.98	20.84	6.44	452.34	6.10	26.02	0.18	23.62
Last 5	10:46:34	3299.97	20.91	6.44	452.22	5.26	26.02	0.17	23.25
Last 5	10:51:34	3599.97	20.92	6.44	452.06	4.88	26.02	0.18	23.16
Last 5	10:56:34	3899.96	21.02	6.44	452.61	4.48	26.02	0.18	22.90
Variance 0			0.07	-0.00	-0.12			-0.01	-0.37
Variance 1			0.01	0.00	-0.16			0.01	-0.09
Variance 2			0.10	0.00	0.55			-0.00	-0.25

Notes

Start purging well @ 09:52, stop @ 10:56; Initial purge rate of 400 ml/min reduced to 185 ml/min @ 09:57, to 175 ml/min @ 10:07, to 170 ml/min @ 10:37; Collect sample @ 11:00; pH during sampling is 6.44; Weather is sunny 55 degrees F

Grab Samples

ARGWC-8

Groundwater sample

Product Name: Low-Flow System

Date: 2020-09-29 13:14:23

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-15	Tubing Length	48 ft
Latitude	32° 54' 55.62"		
Longitude	-83° -42' -31.22"		
Sonde SN	642533		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-15	Final Pumping Rate	90 mL/min
Well diameter	2.00 in	Total System Volume	0.6942443 L
Well Total Depth	43.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	27 in
Depth to Water	28.43 ft	Total Volume Pumped	2.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	12:34:06	600.02	19.56	7.23	252.30	2.55	29.45	4.13	43.62
Last 5	12:39:06	900.02	19.40	7.18	250.02	2.23	29.95	3.83	41.54
Last 5	12:44:06	1200.01	19.31	7.13	246.67	2.15	30.41	3.98	41.24
Last 5	12:49:06	1500.00	19.34	7.12	245.37	1.92	30.84	4.01	40.88
Last 5	12:54:06	1800.00	19.30	7.11	244.56	2.02	31.14	3.98	40.44
Variance 0			-0.09	-0.05	-3.36			0.15	-0.30
Variance 1			0.03	-0.01	-1.30			0.04	-0.36
Variance 2			-0.04	-0.00	-0.81			-0.03	-0.43

Notes

Start purging well @ 12:26, Stop @ 12:59; Initial purge rate of 100 ml/min reduced to 90 ml/min @ 12:30; Sample collected @ 13:05; pH during sampling is 7.11; Weather is cloudy with light rain 67 degrees F

Grab Samples

ARGWC-15

Groundwater sample

Product Name: Low-Flow System

Date: 2020-09-29 15:03:25

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED dedicated
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-17	Tubing Length	39 ft
Latitude	32° 54' 55.62"		
Longitude	-83° -42' -31.22"		
Sonde SN	642533		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.5 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-17	Final Pumping Rate	220 mL/min
Well diameter	2.00 in	Total System Volume	0.6540735 L
Well Total Depth	34.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.84 in
Depth to Water	21.72 ft	Total Volume Pumped	8.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:29:00	1200.02	19.06	5.74	207.64	11.00	22.32	0.49	52.18
Last 5	14:34:00	1500.01	19.06	5.74	207.09	6.78	22.30	0.39	48.80
Last 5	14:39:00	1800.01	19.09	5.75	207.64	4.46	22.31	0.33	46.50
Last 5	14:44:00	2100.00	19.03	5.75	208.59	2.86	22.30	0.29	44.90
Last 5	14:49:00	2399.99	19.06	5.75	208.92	2.58	22.30	0.26	44.11
Variance 0			0.03	0.00	0.55			-0.07	-2.30
Variance 1			-0.06	0.01	0.95			-0.04	-1.60
Variance 2			0.03	-0.00	0.32			-0.03	-0.79

Notes

Start purging well @ 14:10, Stop @ 14:49; Purge rate maintained between 230 and 220 ml/min; Collect sample @ 14:55; pH during sample collection is 5.75; Weather is cloudy 64 degrees F

Grab Samples

ARGWC-17

Groundwater sample

Date: 9-29-2021
Time: 740
Prepared By: ENER GUILLEN
Checked By:

Wood.
Project No.
6122201429

Pine Sonde ID: 613229
Pine Handset ID:
Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No ✓ Date: Time:	
Current Air Temperature °C (meter reading):		22.50
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	799.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.57
DO concentration after Calibration (mg/L):		9.03
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		22.7
Reading before Calibration (mS/cm)		1.432
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		^

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		6.91
pH 7.0 value after calibration:		7.02
pH 7.0 mV (range is -50 to +50 mV):		5.6
pH 10 value before calibration:		9.96
pH 10 value after calibration:		10.04
pH 10 mV (range is -130 to -230 mV):		-165.1
pH 4.0 value before calibration:		3.54
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		203.9

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		21.2
Theoretical Calibration standard (mV)	0.231-0.0013(25-T) x 1000 = mV (T is Temperature °C)	228
Reading before calibration (mV):		234.1
Reading after calibration (mV):		234.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
10 NTU Turbidity Standard	Before Cal:	9.56	After Cal:	9.92
20 NTU Turbidity Standard	Before Cal:	19.79	After Cal:	19.97
100 NTU Turbidity Standard	Before Cal:	92.0	After Cal:	99.0
800 NTU Turbidity Check STD	Before Cal:	803	After Cal:	799
10 NTU Turbidity Check STD	Before Cal:	9.99	After Cal:	10.0
CALIBRATION SUCCESSFUL?				YES

Date: 9-30-20
Time: 800
Prepared By: Evan Guilder
Checked By:

Wood.
Project No.
6122201429

Pine Sonde ID: 613229
Pine Handset ID:
Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ___ No ✓ Date: Time: ___	
Current Air Temperature °C (meter reading):		15.30
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	10.34
DO concentration after Calibration (mg/L):		9.07
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		16.6
Reading before Calibration (mS/cm)		1.481
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	6.92	~~7.02~~
pH 7.0 value after calibration:		7.02
pH 7.0 mV (range is -50 to +50 mV):		5.10
pH 10 value before calibration:		10.08
pH 10 value after calibration:		9.73
pH 10 mV (range is -130 to -230 mV):		-166.7
pH 4.0 value before calibration:		4.20
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		170.8

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		16.0
Theoretical Calibration standard (mV)	0.231-0.0013(25-T) x 1000 = mV (T is Temperature °C)	228
Reading before calibration (mV):		191.6
Reading after calibration (mV):		228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
10 NTU Turbidity Standard	Before Cal:	10.0	After Cal:	10.0
20 NTU Turbidity Standard	Before Cal:	18.8	After Cal:	18.1
100 NTU Turbidity Standard	Before Cal:	102	After Cal:	101
800 NTU Turbidity Check STD	Before Cal:	804	After Cal:	813
10 NTU Turbidity Check STD	Before Cal:	8.0	After Cal:	10.1
CALIBRATION SUCCESSFUL?				YES

Date: 10-1-20
Time: 800
Prepared By: EVER GUILLEN
Checked By: _____

Wood.
Project No.
6122201429

Pine Sonde ID: 613229
Pine Handset ID: _____
Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No ✓ Date: Time:	
Current Air Temperature °C (meter reading):		15.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.1
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.84
DO concentration after Calibration (mg/L):		8.99
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		16.1
Reading before Calibration (mS/cm)		1.439
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		6.91
pH 7.0 value after calibration:		7.02
pH 7.0 mV **(range is -50 to +50 mV)**:		5.2
pH 10 value before calibration:		9.74
pH 10 value after calibration:		10.08
pH 10 mV **(range is -130 to -230 mV)**:		-167.0
pH 4.0 value before calibration:		4.22
pH 4.0 value after calibration:		4.00
pH 4.0 mV **(range is 130 to 230 mV)**:		169.1

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		16.7
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 = mV (T is Temperature °C)	228
Reading before calibration (mV):		237.7
Reading after calibration (mV):		240

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
____NTU Turbidity Standard	Before Cal:	10.9	After Cal:	9.96
____ NTU Turbidity Standard	Before Cal:	22.0	After Cal:	20.0
_____ NTU Turbidity Standard	Before Cal:	99.5	After Cal:	99.4
_____ NTU Turbidity Check STD	Before Cal:	791	After Cal:	801
_____ NTU Turbidity Check STD	Before Cal:	9.96	After Cal:	9.97
CALIBRATION SUCCESSFUL?				YES

Date: 9/29/20
Time: 0805
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No.
6122201429

Pine Sonde ID: _____
Pine Handset ID: 541714
Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No ✓ Date: Time:	
Current Air Temperature °C (meter reading):		23.4
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	749.6
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	–
DO concentration after Calibration (mg/L):		7.76
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	92.4
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 19150155	1.413
Temperature (°C)		24.3
Reading before Calibration (mS/cm)		1.413
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.999

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 19340057 / 8/2021	7.09
pH 7.0 value after calibration:	25.0°C	7.00
pH 7.0 mV (range is -50 to +50 mV):		-5.5
pH 10 value before calibration:	Lot 19320102 / 8/2021	9.99
pH 10 value after calibration:	25.1°C	10.00
pH 10 mV (range is -130 to -230 mV):		-176.8
pH 4.0 value before calibration:	20010025 / 8/2021	4.13
pH 4.0 value after calibration:	24.5°C	4.00
pH 4.0 mV (range is 130 to 230 mV):		170.4

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 / 8/2021	24.0
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	230
Reading before calibration (mV):		223.4
Reading after calibration (mV):		230

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	21.8
100 NTU Turbidity Standard	Before Cal:	After Cal:	99.3
800 NTU Turbidity Standard Lot AB155	Before Cal:	After Cal:	806
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.85
_____ NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			

Date: 9/30/20
Time: 0810
Prepared By: Daniel Howard
Checked By:

Wood.
Project No.
6122201429

Pine Sonde ID:
Pine Handset ID: 541714
Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes____ No ✓ Date:____ Time:____	
Current Air Temperature °C (meter reading):		13.3
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.4
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		9.39
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	90.4
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.1060

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 1915015-5	1.413
Temperature (°C)		12.6
Reading before Calibration (mS/cm)		1.428
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.9898

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 19340057 / 8/2021	7.11
pH 7.0 value after calibration:	14.7°C	7.06
pH 7.0 mV **(range is -50 to +50 mV)**:		-6.4
pH 10 value before calibration:	Lot 19320102 / 8/21	9.90
pH 10 value after calibration:	14.6°C	10.08
pH 10 mV **(range is -130 to -230 mV)**:		-177.6
pH 4.0 value before calibration:	Lot 20010025 / 8/21	4.30
pH 4.0 value after calibration:	15.0°C	4.00
pH 4.0 mV **(range is 130 to 230 mV)**:		165.4

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 / 8/21	14.9
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	242
Reading before calibration (mV):		233.2
Reading after calibration (mV):		242

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	19.4
100 NTU Turbidity Standard	Before Cal:	After Cal:	102
800 NTU Turbidity Standard Lot A815-5	Before Cal:	After Cal:	808
10 NTU Turbidity Check STD	Before Cal:	After Cal:	10.1
0.1 NTU Turbidity Check STD	Before Cal:	After Cal:	0.0
CALIBRATION SUCCESSFUL?			

Date: 10/1/20
Time: 0800
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No.
6122201429

Pine Sonde ID: _____
Pine Handset ID: 54014
Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No ✓ Date: ____ Time:	
Current Air Temperature °C (meter reading):		13.5
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.3
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		9.54
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	92.3
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0830

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 19150155	1.413
Temperature (°C)		13.4
Reading before Calibration (mS/cm)		1.415
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.9984

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot 19340057 / 8/2021		7.10
pH 7.0 value after calibration:		17.4°C	7.02
pH 7.0 mV (**range is -50 to +50 mV**):			-6.1
pH 10 value before calibration:	Lot 19320102 / 8/21		~~10.4~~ 9.95
pH 10 value after calibration:		17.6°C	10.04
pH 10 mV (**range is -130 to -230 mV**):			-178.5
pH 4.0 value before calibration:	Lot 20010025 / 8/21		4.25
pH 4.0 value after calibration:		17.8°C	4.00
pH 4.0 mV (**range is 130 to 230 mV**):			166.6

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 / 8/21	17.6
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	239
Reading before calibration (mV):		230.2
Reading after calibration (mV):		239

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	23.2
100 NTU Turbidity Standard	Before Cal:	After Cal:	105
800 NTU Turbidity Standard Lot A8155	Before Cal:	After Cal:	808
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.59
<0.1 NTU Turbidity Check STD	Before Cal:	After Cal:	0.0
CALIBRATION SUCCESSFUL?			

Date: 9/29/20
Time: 06:15
Prepared By: A SHOREDITS
Checked By: NA

Wood.
Project No. 6122201429

SMARTROLL MP
~~Pine~~ Sonde ID: 642533
Pine Handset ID: NA (Tablet)
Battery Voltage %: 100
Hach 2000Q SN 161100053543

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No X Date: ____ Time: ____	
Current Air Temperature °C (meter reading):		22.49
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level; 565/100 x 2.54 = 14.4 mm Hg	-3.9.
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.46 29
DO concentration after Calibration (mg/L):		8.69
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

1.5. 7/21/20
99.9%
100 %.

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 19150155 Exp. NA.	1.413
Temperature (°C)		23.55
Reading before Calibration (mS/cm)		1.464
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot# 19340057 Exp. 08/21	7.04	23.8°C
pH 7.0 value after calibration:		7.00	
pH 7.0 mV (range is -50 to +50 mV):		-2.4	
pH 10 value before calibration:	Lot # 19320102 Exp. 08/21	10.01	23.8°C
pH 10 value after calibration:		10.00	
pH 10 mV (range is -130 to -230 mV):		-178.3	
pH 4.0 value before calibration:	Lot # 20010025 Exp. 08/21	4.01	23.2°C
pH 4.0 value after calibration:		4.00	
pH 4.0 mV (range is 130 to 230 mV):		172.7	

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std 228 mV)		
Calibration Temperature (°C):	Lot # 19460167 Exp. 08/21	23.20
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	—
Reading before calibration (mV):		225.1
Reading after calibration (mV):		228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.					
20 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal: 20.0	After Cal:	20.0
100 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal: 102	After Cal:	101
800 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal: 797	After Cal:	805
10 NTU Turbidity Check STD	Lot # A0226	Exp. 11/21	Before Cal: 10.1	After Cal:	10.5
___ NTU Turbidity Check STD			Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?					

Date: 9/30/2020
Time: 07:30
Prepared By: A. SMOLEDITES
Checked By: NA

Wood.
Project No. 6122201429

SMARTROLL MP
~~Pine Sonde ID:~~ 642533
Pine Handset ID: NA
Battery Voltage %: 100
Hach 2100Q SN 16110C053543

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE	
Was DO membrane changed?	Yes ____ No X Date: Time:		
Current Air Temperature °C (meter reading):		~~17.14~~	16.34
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		-92 mmHg	
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg		
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:			
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	10.4	101%
DO concentration after Calibration (mg/L):		9.42	100.1%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery		
DO Charge (DO ch):	Acceptable Range is 25 to 75		
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants		

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]			
Calibration standard used (mS/cm)	Lot # 19150155 Exp. NA	1.413	AS 9/30/20
Temperature (°C)		12.8	
Reading before Calibration (mS/cm)		~~1.3842~~	1.405
Reading AFTER Calibration (mS/cm)		1.417	
Conductivity Cell Constant (unitless):			

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot # 19340057 Exp. 08/21	7.06	
pH 7.0 value after calibration:		7.00	
pH 7.0 mV (**range is -50 to +50 mV**):		-3.7	
pH 10 value before calibration:	Lot # 19320102 Exp 08/21	9.92	
pH 10 value after calibration:		10.00	
pH 10 mV (**range is -130 to -230 mV**):		-177.9	
pH 4.0 value before calibration:	Lot # 20010025 Exp 08/21	4.56	
pH 4.0 value after calibration:		4.00	
pH 4.0 mV (**range is 130 to 230 mV**):		175.3	

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (Std. 228 mV)		
Calibration Temperature (°C):	Lot # 19460167 Exp. 08/21	16.89
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	
Reading before calibration (mV):		239.0
Reading after calibration (mV):		228.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.						
20 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal:	20.6	After Cal:	~~20.2~~ 19.7
100 NTU Turbidity Standard	Lot # NA	Exp NA	Before Cal:	103	After Cal:	99.1
800 NTU Turbidity Standard	Lot # NA	Exp. NA	Before Cal:	787	After Cal:	793
10 NTU Turbidity Check STD	Lot # A0226	Exp. 11/21	Before Cal:	10.8	After Cal:	10.5
___ NTU Turbidity Check STD			Before Cal:		After Cal:	
CALIBRATION SUCCESSFUL?						YES

10/01

Date: 09/30/2020
Time: 07:40
Prepared By: A. SHOREDITS
Checked By: NA

Wood.
Project No. 6122201429

SMARTROLL MP
Pine Sonde ID: 642533
~~Pine~~ Handset ID: NA
Battery Voltage %: 100
Hach 2100Q S/N 161100053543

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE	
Was DO membrane changed?	Yes ____ No X Date: Time:		
Current Air Temperature °C (meter reading):			
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		-8.4 mm Hg	
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg		
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:			
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.16	100.7 %
DO concentration after Calibration (mg/L):		9.34	100.2 %
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery		
DO Charge (DO ch):	Acceptable Range is 25 to 75		
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants		

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot# 19150155 Exp NA	1.413
Temperature (°C)		14.26
Reading before Calibration (mS/cm)		1.402
Reading AFTER Calibration (mS/cm)		1.416
Conductivity Cell Constant (unitless):		-

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot# 19340057 Exp 08/21	7.07	
pH 7.0 value after calibration:		7.00	
pH 7.0 mV **(range is -50 to +50 mV)**:		-41	
pH 10 value before calibration:	Lot# 19320102 Exp 08/21	9.94	18.1°C
pH 10 value after calibration:		10.00	
pH 10 mV **(range is -130 to -230 mV)**:		-178.4	
pH 4.0 value before calibration:	Lot# 20010025 Exp 08/21	4.02	17.00°C
pH 4.0 value after calibration:		4.00	
pH 4.0 mV **(range is 130 to 230 mV)**:		168.7	

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) (std 228 mV)		
Calibration Temperature (°C):	Lot# 19460167 Exp 08/21	18.17
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	-
Reading before calibration (mV):		223.6
Reading after calibration (mV):		228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
20 NTU Turbidity Standard Lot# NA Exp NA	Before Cal: 20.4	After Cal:	19.9
100 NTU Turbidity Standard Lot# NA Exp NA	Before Cal: 103	After Cal:	98
800 NTU Turbidity Standard Lot# NA Exp NA	Before Cal: 811	After Cal:	725
10 NTU Turbidity Check STD Lot# A0226 Exp 11/21	Before Cal: 10.5	After Cal:	9.79
__ NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			YES

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWA-3
Date: 9-28-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWA-5
Date: 9-28-20

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**	✓		
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**	✓		
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAMW-6
Date: 9-28-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing	✓		
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARKWC-9
Date: 9-28-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWA-14
Date: 9-28-20

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-15
Date: 9-28-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-16
Date: 9-28-20

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-17
Date: 9-28-20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAMW-3
Date: 09/28/2020

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAMW-6
Date: 09/28/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

ANDREAS STEFAN STROEDTS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 2310

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-7
Date: 09/28/2020

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?			✓
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:
Vegetation heavily overgrown around well; Bollards to the W & SE are loose, SW bollard is down.

Signature and Seal of PE/PG responsible for inspection

ANDREAS STEFAN SIMMONDS
No. 2310
STATE OF FLORIDA REGISTERED PROFESSIONAL GEOLOGIST

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWC-8
Date: 09/28/2020

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date: SW & SE bollards are loose.			

Signature and Seal of PE/PG responsible for inspection

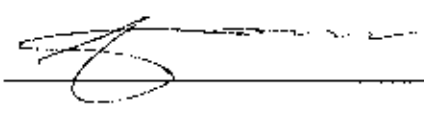
ANDREAS STEFAN SHORETS
FLORIDA REGISTERED PROFESSIONAL GEOLOGIST
No. 2310

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARCMC-10
Date: 09/28/2020

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWA-12
Date: 9/28/20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

David Howard

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARK-WA-13
Date: 9/28/20

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

Daniel Howard

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARAWC-18
Date: 09/28/2020

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

Signature and Seal of PE/PG responsible for inspection

ANDREAS STEFAN SHOMOUS
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 2310

Data Evaluation Narrative
Project: Plant Arkwright Second Semiannual Event
Wood Project Number: 6122201429.2003.**
Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-111645-1

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Second Semiannual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in September/October 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection limit; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods SW6020B, EPA 300.0 R2.1, and SM 2540C.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica in Pittsburgh, Pennsylvania (TAL PIT) and analyzed for CCR Appendix III, detected Appendix IV metals, and the Solid Waste Permit Appendix I metals by Method SW6020B, anions (chloride, fluoride, and sulfate) by Method 300.0 R2.1, and total dissolved solids (TDS) by Method SM 2540C. The samples were also analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. The radium analyses were performed at Eurofins TAL St. Louis, Missouri laboratory (TAL SL) and reported in SDG 180-111645-2. The DQE for the radium analyses is presented separately.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3					
ARGWA-5	09/29/20	II	ARAMW-3	09/30/20	II
ARGWA-3	09/29/20	II	ARGWC-18*	09/30/20	II
ARGWC-7	09/29/20	II	ARGWC-10	10/01/20	II
ARGWC-16	09/29/20	II	ARGWC-9	10/01/20	II
ARGWA-14	09/29/20	II	ARAMW-6	10/01/20	II
ARGWC-15	09/29/20	II	ARGWC-8	10/01/20	II
ARGWC-17	09/29/20	II	**QC Samples**		
ARGWA-12	09/29/20	II	FB-01	09/29/20	II
ARGWA-13	09/29/20	II	DUP-01	09/29/20	II
ARAMW-4	09/30/20	II	EB-01	09/30/20	II

*Sample additionally analyzed for dissolved metals

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between September 29 and October 1, 2020. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-01 is a field duplicate of ARGWC-17. Sample EB-01 is an equipment blank, and sample FB-01 is a field blank. The equipment blank sample associations are listed below:

Equipment Blank	Associated Samples
EB-01 (QED Sample-Pro bladder pump)	ARAMW-3, ARAMW-4, ARAMW-6

The analytical results for the metals, anions, and TDS data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Metals (6020B/SW7470A)

The monitoring well samples collected from Ash Pond No. 3 were submitted to TAL PIT for CCR Appendix III, detected Appendix IV metals, and the Solid Waste Permit Appendix I metals by Method SW6020B. The CCR Appendix III metals are boron (B) and calcium (Ca). The CCR Appendix IV metals are: antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), lead (Pb), lithium (Li), mercury (Hg), molybdenum (Mo), selenium (Se), and thallium (Tl). The Solid Waste Permit Appendix I metals are: As, Ba, Cd, Pb, Se, and silver (Ag). Each of the Level II components were within QC limits except for method and equipment blank contamination.

Holding Times

The sample analyses were performed within the 6-month analysis holding time.

Method Blanks

One of the method blanks associated with the samples analyzed within this SDG contained thallium between the method detection limit (MDL) and the reporting limit (RL). Results less than ten times the blank are considered not detected as a possible laboratory artifact: **Reason Code: BL**.

> *Action: The Tl result for samples ARGWA-14, ARGWA-5, and ARGWC-16 was qualified as not detected due to possible blank contamination and flagged "U*".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

A batch MS/MSD analysis for metals was performed on sample ARGWC-7 and the recoveries and RPDs were within QC limits.

Post Digestion Spike (PDS)

A PDS analysis was not available for review.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWC-17) was collected with this SDG, and the RPDs were within QC limits for results greater than or equal to five times the reporting limit.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The field blank sample FB-01 did not contain reportable concentrations of metals. Equipment blank EB-01 reported boron (B) between the MDL and the RL. Results less than ten times the blank are considered not detected as a possible field artifact: **Reason Code: BE**

> *Action: The B result for ARAMW-4 was qualified as not detected due to equipment blank contamination and flagged "U*".*

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of metals by USEPA Methods SW6020B. The laboratory RL was elevated where dilutions were required to place the constituent within the calibration range. None of the samples in this SDG required dilution.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Total and Dissolved Metals Comparison

Total and dissolved metals were collected on sample ARGWC-18. Comparison of the total and dissolved results can aid in the representativeness of the total metals value verses the metals that may be associated with suspended solids and metals actually dissolved within the water column. The dissolved metals results should be less than or equal to the total metals concentration for positive results greater than 5 times the RL. The dissolved metals for ARGWC-18 were not more than 10 percent greater than the associated total metals results.

Anions (EPA 300.0 R2.1)

The monitoring well samples collected from Ash Pond No. 3 samples were submitted to TAL PIT for chloride, fluoride, and sulfate by Method 300.0 R2.1. Each of the Level II components were within the QC limits except for MS/MSD recoveries.

Holding Times

The sample analyses were performed within the 28-day analysis holding time.

Method Blanks

The method blank associated with the samples analyzed in this SDG contained no reportable detections of anions.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The batch MS/MSDs for anions (fluoride) were performed samples ARGWC-15, ARGWA-12, and ARGWC-10, and the recoveries and RPDs were within QC limits.

Field Duplicate Precision

One field duplicate/sample pairs (DUP-1/ARGWC-17) was collected with this SDG, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank sample (EB-01) and field blank sample (FB-01) did not contain reportable concentrations of anions.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of anions by USEPA Method 300 R2.1. Dilutions were required for the following samples:

Sample	Anion	Dilution
ARGWA-13	sulfate	5x
ARAMW-4	sulfate	10x

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

TDS (SM 2540C)

The samples were submitted to Pace for TDS by Method SM 2540C. Each of the Level II components were within laboratory QC limits.

Holding Times

The sample analyses were performed within the 7-day analysis holding time.

Method Blanks

The laboratory method blanks contained did not contain reportable concentrations of TDS.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Laboratory Duplicate Precision

Batch precision for TDS was measured through the analysis of laboratory duplicates. The laboratory analyzed project samples ARGWC-16 and ARAMW-4 in duplicate and the RPDs were within the QC limits.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWC-17) was collected with this SDG, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank, EB-01, and field blank, FB-01, did not contain reportable detections of TDS.

Reporting Limits

The laboratory RL was below the screening value of 500 mg/L for samples submitted for the analysis of TDS by Method SM 2540C and no samples required dilutions; therefore, RLs were met for this project. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates; however, no TDS results were reported between the MDL and RL in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the September/October 2020 Second Semiannual event at Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate, field blank, and equipment blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: JAH 11/12/2020
Checked by/Date: DWK 11/12/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-111645-1
SAMPLING DATES: September 29-30 and October 1, 2020
Plant Arkwright Ash Pond No. 3 - Second Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARAMW-3	ARAMW-3	N	180-111645-1	E300.0 R2.1	fluoride	0.064	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-111645-1	6020B	cobalt	0.0011	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-111645-1	6020B	molybdenum	0.0061	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	E300.0 R2.1	fluoride	0.028	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	6020B	arsenic	0.00039	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	6020B	boron	0.39		U*	BE	mg/L
ARAMW-4	ARAMW-4	N	180-111645-1	6020B	molybdenum	0.00073	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-111645-1	E300.0 R2.1	fluoride	0.071	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-111645-1	6020B	cobalt	0.0018	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-111645-1	E300.0 R2.1	fluoride	0.06	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-111645-1	6020B	cobalt	0.00016	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-111645-1	6020B	lithium	0.0048	J	J	--	mg/L
ARGWA-13	ARGWA-13	N	180-111645-1	E300.0 R2.1	fluoride	0.032	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	arsenic	0.00038	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	boron	0.039	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	lithium	0.0044	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-111645-1	6020B	thallium	0.00019	J	U*	BL	mg/L
ARGWA-3	ARGWA-3	N	180-111645-1	E300.0 R2.1	fluoride	0.065	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-111645-1	E300.0 R2.1	fluoride	0.051	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-111645-1	6020B	thallium	0.00019	JB	U*	BL	mg/L
ARGWC-10	ARGWC-10	N	180-111645-1	E300.0 R2.1	fluoride	0.048	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-111645-1	E300.0 R2.1	fluoride	0.089	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-111645-1	6020B	cobalt	0.0003	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-111645-1	6020B	molybdenum	0.0019	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-111645-1	E300.0 R2.1	fluoride	0.0260	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-111645-1	6020B	selenium	0.0025	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-111645-1	6020B	thallium	0.00025	J	U*	BL	mg/L
ARGWC-17	ARGWC-17	N	180-111645-1	E300.0 R2.1	fluoride	0.029	J	J	--	mg/L
ARGWC-17	ARGWC-17	N	180-111645-1	6020B	beryllium	0.0004	J	J	--	mg/L
ARGWC-17	ARGWC-17	N	180-111645-1	6020B	boron	0.045	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	E300.0 R2.1	fluoride	0.029	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	6020B	beryllium	0.0004	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	6020B	boron	0.045	J	J	--	mg/L
DUP-01-092920	ARGWC-17	FD	180-111645-1	6020B	lead	0.00015	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	E300.0 R2.1	fluoride	0.082	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	cobalt	0.0013	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	lead	0.0002	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	lithium	0.0048	J	J	--	mg/L

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-111645-1
SAMPLING DATES: September 29-30 and October 1, 2020
Plant Arkwright Ash Pond No. 3 - Second Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	dissolved cobalt	0.0012	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-111645-1	6020B	dissolved lithium	0.0046	J	J	--	mg/L
ARGWC-7	ARGWC-7	N	180-111645-1	E300.0 R2.1	fluoride	0.027	J	J	--	mg/L
ARGWC-7	ARGWC-7	N	180-111645-1	6020B	boron	0.078	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-111645-1	6020B	cobalt	0.00021	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-111645-1	6020B	lithium	0.0035	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-111645-1	E300.0 R2.1	fluoride	0.041	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-111645-1	E300.0 R2.1	sulfate	0.82	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-111645-1	6020B	boron	0.041	J	J	--	mg/L
EB-01	Equipment Blank	EB	180-111645-1	6020B	boron	0.048	J	J	--	mg/L

Notes:

Metals results are total metals unless otherwise noted.

Laboratory Qualifiers:

B = Analyte was detected in the associated method blank.

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Reason Codes:

BE = Equipment blank contamination. The result should be considered "not-detected".
BL = Laboratory blank contamination. The result should be considered "not-detected".
-- = No Reason Code assigned for values detected between the method detection limit (MDL) and the reporting limit (RL);estimated quantitation.

Validation Qualifiers:

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only. The associated numerical value is the approximate concentration of the analyte in the sample.

U* = This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

Prepared by/Date: JAH 11/12/20
Checked by/Date: DWK 11/12/20

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR 2nd Semiannual Event
Project No: 6122201429.2003.****
Method: Metals by SW6020B
Laboratory and Lot: TAL PIT SDG: 180-111645-1
Reviewer/Date: J. Hartness 11/12/2020 **Senior Reviewer/Date:** D. Knaub 11/12/2020

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)** OK, 2.1, 2.7, 3.4, 3.8, 3.8 °C	
X			**Holding times met (180 days; Hg = 28 days)** Coll: 09/29/20, 09/30/20, 10/01/20 Prep: metals – 10/12/20, 10/13/20 Anal: metals – 10/22/20, 10/21/20	
	X		**QC Blanks Review** Method Blanks: p. 36 MB 180-333113/1-A Tl = 0.000208 J mg/L x10 = **0.00208 mg/L** ***Flag assoc. results "U*" Reason Code: BL:*** *ARGWA-14, ARGWA-5, ARGWC-16* p. 37-38 MB 180-333214/1-A = ND Prep Blank: p. 38-39 PB 180-332490/1G = ND Equipment Blanks: (non-dedicated equip.) EB-01 (bladder) = B = 0.048 J mg/L x 10 = **0.48 mg/L** ***Flag assoc. results "U*": Reason Code: BE*** *ARAMW-4* Field Blanks: (DI water) FB-01 = ND	
X			**Laboratory Control Sample (LCS) recovery within limits (Metals 80-120%, Hg = 80-120%)** p. 36-37 LCS 180-333113/2-A metals = All OK p. 38 LCS 180-333214/2-A metals = All OK p. 39 LCS 180-332490/2-G metals = All OK	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)** *Results in mg/L*	

metal	ARGWC-17	DUP-1-092920	RPD/Diff	RL	Flag
Ba	0.056	0.058	3.5%		ok
Be*	0.0004 J	0.0004 J	0	0.0025	ok
B*	0.045 J	0.045 J	0	0.08	ok
Ca	12	13	8%		ok
Co	0.027	0.027	0		ok
Pb*	<0.00013	0.00015 J	0.00002	0.001	ok

**For detections ≤5x RL – use absolute difference. Difference should be < RL.*

Metals continued:

YES	NO	NA	COMMENTS
X			**Matrix Spike recoveries and RPDs within limits (75-125%, RPD 20)** p. 37 ARGWC-7: metals – all %rec and RPDs OK
	X		**Total metals vs dissolved metals within limits (RPD < 20% or diff. < RL)** *ARGWC-18* anal. for dissolved and total metals. *Ba 0.041 (tot), 0.037 (diss) = OK* *B 2.6 (tot), 2.7 (diss) = ok diss less than 10% > total* *Ca 52 (tot), 53 (diss) = ok diss less than 10% > total* *Co, Pb, Li detected between RL and MDL - ok*
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR 2nd Semiannual Event
Project No: 6122201429.2003.****
Method: Anions (fluoride) by E300.0 R2.1
Laboratory and Lot: TAL PIT SDG: 180-111645-1
Reviewer/Date: J. Hartness 11/12/2020 **Senior Reviewer/Date:** D. Knaub 11/12/2020

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
X			**Sample Preservation and cooler temperature met (Cool to 6°C)** OK, 2.1, 2.7, 3.4, 3.8, 3.8 °C	
X			**Holding times met (Cl, SO_4, F – 28 days)** Coll: 09/29/20, 09/30/20, 10/01/20 Anal: 10/06/20, 10/07/20, 10/09/20, 10/10/20, 10/11/20	
X			**QC Blanks Review** Method Blanks: p. 34 MB 180-332371/38 = ND; p. 34 MB 180-332371/6 = ND; p. 35 MB 180-332816/6 = ND; p. 35 MB 180-332937/43 = ND. Equipment Blanks: EB-01 = ND. Field Blanks: FB-01 = ND	
X			**Laboratory Control Sample (LCS) recovery within limits (90-110%)** p. 34 LCS 180-332371/37 = all recoveries ok; p. 34 LCS 180-332371/5 = all recoveries ok; p. 35 LCS 180-332816/5 = all recoveries ok; p. 35 LCS 180-332937/42 = all recoveries ok	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)**	
X			**Matrix Spike recoveries and RPDs within limits (lab %Rec limits, RPD = 20)** p. 34 ARGWC-15 All recoveries and RPDs ok; p. 35 ARGWA-12 All recoveries and RPDs ok; p. 36 ARGWC-10 All recoveries and RPDs ok	
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)**	

Results in mg/L

anion	ARGWC-17	DUP-1-092920	RPD	RL	Flag
Cl	3.4	3.5	2.9%		ok
F*	0.029 J	0.029 J	0	0.1	ok
SO_4	66	69	4.4%		ok

**For detections ≤5x RL – use absolute difference. Difference should be < RL.*

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR 2nd Semiannual Event
Project No: 6122201429.2003.****
Method: TDS by SM 2540C
Laboratory and Lot: TAL PIT SDG: 180-111645-1
Reviewer/Date: J. Hartness 11/12/2020 **Senior Reviewer/Date:** D. Knaub 11/12/2020

YES NO NA COMMENTS

X **Case Narrative and COC Completeness Review**
OK

X **Sample Preservation and cooler temperature met (Cool to 6°C)**
OK, 2.1, 2.7, 3.4, 3.8, 3.8 °C

X **Holding times met (7 days)**
Coll: 09/29/20, 09/30/20, 10/01/20
Anal: 10/01/20, 10/02/20, 10/05/20

X **QC Blanks Review**
Method Blanks:
p. 39 MB 180-331934/2 = ND p. 40 MB 180-331996/2 = ND
p. 40 MB 180-332159/2 = ND p. 40 MB 180-332329/2 = ND

Field/Equipment Blanks:
EB-01 = TDS: *ND*
FB-01 = TDS: *ND*

X **Laboratory Control Sample (LCS) recovery within lab limits**
p. 39 LCS 180-331934/1 = 99% p. 40 LCS 180-331996/1 = 85%
p. 40 LCS 180-332159/1 = 104% p. 40 LCS 180-332329/1 = 94%

X **Lab Duplicate - Field Duplicate precision goals met (20%)**

Results in mg/L

Analyte	ARGWC-17	DUP-1-092920	RPD	Flag
TDS	140	140	0%	ok

p. 40 lab duplicate performed on:
ARGWC-16; RPD = 1% - OK
ARAMW-4; RPD = 0.6% - OK

X **Matrix Spike recoveries and RPDs within limits (if applicable)**
None for TDS

X **EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

Data Evaluation Narrative
Project: Plant Arkwright Second Semiannual Event
Wood Project Number: 6122201429.2003.**
Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-111645-2 (Radium)

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Second Semiannual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in September/October 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-111645-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3					
ARGWA-5	09/29/20	II	ARAMW-3	09/30/20	II
ARGWA-3	09/29/20	II	ARGWC-18	09/30/20	II
ARGWC-7	09/29/20	II	ARGWC-10	10/01/20	II
ARGWC-16	09/29/20	II	ARGWC-9	10/01/20	II
ARGWA-14	09/29/20	II	ARAMW-6	10/01/20	II
ARGWC-15	09/29/20	II	ARGWC-8	10/01/20	II
ARGWC-17	09/29/20	II	**QC Samples**		
ARGWA-12	09/29/20	II	FB-01	09/29/20	II
ARGWA-13	09/29/20	II	DUP-01	09/29/20	II
ARAMW-4	09/30/20	II	EB-01	09/30/20	II

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between September 29 and October 1, 2020. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-01 is a field duplicate of ARGWC-17. Sample EB-01 is an equipment blank, and sample FB-01 is a field blank. The equipment blank sample associations are listed below:

Equipment Blank	Associated Samples
EB-01 (QED Sample-Pro bladder pump)	ARAMW-3, ARAMW-4, ARAMW-6

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits except for method blank and field blank contamination, and LCS recoveries.

Holding Times

The sample analyses were performed within the 6 months analysis holding times.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-228 above the minimum detected concentration (MDC) indicating no interference from the analytical systems. One of the method blanks contained radium-226 above the MDC, and any result less than the two-sigma (2σ) normalized absolute difference (NAD) limit of 2.58 are considered "not detected" as possible lab artifacts: **Reason Code: BL**

> *Action: The radium-226 and total radium results for sample ARAMW-4 were qualified as not detected and flagged "U*".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits.

Laboratory Duplicate Precision

Laboratory duplicate analyses were performed via the analysis of LCSDs. The relative error ratios (RERs) between the LCS and LCSDs were within QC limits.

Field Duplicate Precision

One field duplicate pair (ARGWC-17/DUP-01) was submitted and the RER could not be calculated because the results in one or both samples were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The equipment and field blanks did not contain radium-226 or radium-228.

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value verses the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 16 wells, along with the required QC samples, were sampled and analyzed during the September/October 2020 event in Ash Pond No. 3 according to the FSP. The 16 well locations along with field duplicate and equipment and field blank samples were reported in this SDG and were sampled and analyzed as scoped. Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: JAH 12/16/2020
Checked by/Date: DWK 12/16/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP: 180-111645-2
SAMPLING DATES: September 29, 2020 through October 1, 2020
Plant Arkwright Ash Pond No. 3 - Second Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARAMW-4	ARAMW-4	N	180-111645-2	9315	radium-226	0.146		U*	BL	pCi/L
ARAMW-4	ARAMW-4	N	180-111645-2	9315 + 9320	total radium	0.532		U*	BL	pCi/L

Notes:

Reason Codes:
BL = Laboratory blank contamination. The result should be considered "not-detected".

Validation Qualifiers:
U* = This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

Prepared by/Date: JAH 12/16/20
Checked by/Date: DWK 12/16/20

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright 2nd Semiannual Event
Project No: 6122201429.2003.****
Method: Radium-226, Radium-228 and Combined Radium by Methods 9315 and 9320
Laboratory and Lot: TAL PIT SDG: 180-111645-2
Reviewer/Date: J. Hartness 12/16/2020 **Senior Reviewer/Date:** D. Knaub 12/16/20

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review**	
			OK – Samples anal. @ TAL-St. Louis	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)**	
			OK, 2.1, 2.7, 3.4, 3.8, and 3.8° C.	
X			**Holding times met (180 days)**	
			Collected: 09/29/20-10/01/20	
			Ra-226: prep: 10/06/20, 10/09/20, 10/13/20;	
			anal: 10/28/20, 11/04/20, 11/20/20, 11/21/20	
			Ra 228: prep: 10/06/20, 10/09/20, 10/13/20;	
			anal: 10/15/20, 10/30/20, 11/17/20	
			Ra, combined: anal: 11/02/20, 11/23/20	
	X		**QC Blanks Review (net blank value <MDC)**	
			Ra-226	
			p. 34 MB 160-48743/24-A Ra-226=0.1797 pCi/L	
			(associated samples: EB-01, ARAMW-4, ARAMW-3, ARGWC-18)	
			Assoc. results < NAD 2σ flagged "U*"	
			Reason code: BL ARAMW-4	
			p. 34 MB 160-485173/22-A Ra-226 < MDC	
			p. 35 MB 160-485335/22-A Ra-226 < MDC	
			Ra-228	
			p. 35 MB 160-484744/24-A Ra-228 < MDC	
			p. 36 MB 160-485176/22-A Ra-228 < MDC	
			p. 36 MB 160-485338/22-A Ra-228 < MDC	
			Equipment Blanks: (non-dedicated equip.)	
			EB-01 - All < MDC	
			Field Blanks: (DI water)	
			FB-01- All < MDC	

YES	NO	NA	COMMENTS
X			**Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3)** Ra-226 p. 34 LCS 160-484743/1-A Ra-226 = 96% p. 34 LCS/LCSD 160-485173/1-A, 2-A Ra-226 = 92, 88% RER = 1 p. 35 LCS 160-485335/1-A Ra-226 = 85% Ra-228 p. 35 LCS/160-484744/1-A, Ra-228 = 100% p. 36 LCS/LCSD 160-485176/1-A, 2-A Ra-228 = 94, 93% RER = 0.05 p. 37 LCS 160-485338/1-A Ra-228 = 110%
X			**Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)** *Field Duplicate: ARGWC-17 = DUP-1-092920* *RER* *Ra-226* *<0.176* *0.205* *diff = 0.029-Ok, <RL(1.0)* *Ra-226* *<MDC* *<MDC* *NC* *Ra, total* *<MDC* *<MDC* *NC*
	X		**Matrix Spike recoveries and RPDs within limits (if applicable)** NA
X			**Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba); Ra-228 (Carrier Ba, Tracer: Y) (40-110%)** All ok
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-114251-1
Client Project/Site: CCR - Plant Arkwright
Revision: 1

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
1/26/2021 8:27:21 AM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Job ID: 180-114251-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-114251-1

Comments
012621 Revised report to add silver at client request. This report replaces the report previously issued on

Receipt
The samples were received on 12/2/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8º C and 4.1º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	12-21-20
Illinois	NELAP	004375	12-21-20
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	12-21-20
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	12-21-20
New Jersey	NELAP	PA005	12-21-20
New York	NELAP	11182	12-21-20
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	12-21-20
Pennsylvania	NELAP	02-00416	12-21-20
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	12-21-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	12-21-20
Virginia	NELAP	10043	12-21-20
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-114251-1	FB-01	Water	12/01/20 11:40	12/02/20 10:30	
180-114251-2	EB-01	Water	12/01/20 11:55	12/02/20 10:30	
180-114252-1	ARGWA-24	Water	12/01/20 13:52	12/02/20 10:30	
180-114252-2	DUP-1	Water	12/01/20 00:00	12/02/20 10:30	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: FB-01

Date Collected: 12/01/20 11:40
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/02/20 18:18	SAT	TAL PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:01	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 14:58	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:06	KEM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:44	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:15	AVS	TAL PIT
	Instrument ID: PCTITRATOR									

Client Sample ID: EB-01

Date Collected: 12/01/20 11:55
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/02/20 18:39	SAT	TAL PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:08	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 15:05	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:09	KEM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:46	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:20	AVS	TAL PIT
	Instrument ID: PCTITRATOR									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: ARGWA-24

Date Collected: 12/01/20 13:52
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339255	12/03/20 12:18	SAT	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/03/20 01:36	SAT	TAL PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:37	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 15:12	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:10	KEM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:48	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:39	AVS	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			340575	12/01/20 13:52	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1

Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			339100	12/02/20 13:25	SAT	TAL PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			339788	12/05/20 15:44	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	339431	12/04/20 07:38	KHM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			339788	12/05/20 15:40	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	339337	12/03/20 10:46	KEM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			339529	12/04/20 15:11	KEM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	9030B			50 mL	50 mL	339874	12/08/20 12:30	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			340074	12/08/20 14:50	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	339351	12/03/20 11:40	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: DUP-1
Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM2320 B		1			339624	12/04/20 15:50	AVS	TAL PIT
Total/NA	Analysis	Field Sampling		1			340575	12/01/20 00:00	AGJ	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle
KEM = Kimberly Mahoney
KHM = Kyle Mucroski

Batch Type: Analysis

AGJ = Andy Johnson
AVS = Abbey Smith
CMR = Carl Reagle
GRB = Gabriel Berghe
KEM = Kimberly Mahoney
RSK = Robert Kurtz
SAT = Stephen Tallam

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: FB-01
Date Collected: 12/01/20 11:40
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-1
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 18:18	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 18:18	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 18:18	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 18:18	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 18:18	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 14:58	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 14:58	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 14:58	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 14:58	1
Boron	**0.044**	**J**	0.080	0.039	mg/L		12/04/20 07:38	12/05/20 14:58	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 14:58	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 14:58	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 14:58	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 14:58	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 14:58	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 14:58	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 14:58	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 14:58	1
Thallium	**0.00019**	**J**	0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 14:58	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 14:58	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:01	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:01	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:01	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:44	1
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:15	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: EB-01
Date Collected: 12/01/20 11:55
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-2
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 18:39	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 18:39	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 18:39	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 18:39	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 18:39	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:05	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:05	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:05	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:05	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:05	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:05	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:05	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:05	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:05	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:05	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:05	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:05	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:05	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:05	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:05	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:08	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:08	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:08	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:46	1
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:20	1

Client Sample ID: ARGWA-24

Date Collected: 12/01/20 13:52
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		1.0	0.32	mg/L			12/03/20 01:36	1
Fluoride	<0.044		0.10	0.044	mg/L			12/03/20 12:18	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/03/20 01:36	1
Nitrite as N	**0.27**		0.050	0.029	mg/L			12/03/20 01:36	1
Sulfate	**7.5**		1.0	0.38	mg/L			12/03/20 01:36	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:12	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:12	1
Barium	**0.038**		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:12	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:12	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:12	1
Calcium	**13**		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:12	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Cobalt	**0.0058**		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:12	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:12	1
Potassium	**0.92**		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:12	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Sodium	**13**		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:12	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:12	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:12	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.17**		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:37	1
Manganese	**0.27**		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:37	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:37	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:48	1
Total Dissolved Solids	**120**		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	**65**		5.0	5.0	mg/L			12/04/20 15:39	1
Bicarbonate Alkalinity as CaCO3	**65**		5.0	5.0	mg/L			12/04/20 15:39	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:39	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.85**				SU			12/01/20 13:52	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Client Sample ID: DUP-1
Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		1.0	0.32	mg/L			12/02/20 13:25	1
Fluoride	**0.073**	**J**	0.10	0.044	mg/L			12/02/20 13:25	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 13:25	1
Nitrite as N	**0.054**		0.050	0.029	mg/L			12/02/20 13:25	1
Sulfate	**7.3**		1.0	0.38	mg/L			12/02/20 13:25	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 15:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 15:40	1
Barium	**0.037**		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 15:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 15:40	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 15:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 15:40	1
Calcium	**13**		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 15:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Cobalt	**0.0055**		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 15:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 15:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 15:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 15:40	1
Potassium	**0.93**		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 15:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Sodium	**13**		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 15:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 15:40	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:40	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.17**		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 15:44	1
Manganese	**0.31**		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 15:44	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 15:44	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:50	1
Total Dissolved Solids	**110**		10	10	mg/L			12/03/20 11:40	1
Total Alkalinity as CaCO3 to pH 4.5	**69**		5.0	5.0	mg/L			12/04/20 15:50	1
Bicarbonate Alkalinity as CaCO3	**69**		5.0	5.0	mg/L			12/04/20 15:50	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 15:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.85**				SU			12/01/20 00:00	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 180-339100/36
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 19:20	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 19:20	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 19:20	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 19:20	1

Lab Sample ID: MB 180-339100/6
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.32		1.0	0.32	mg/L			12/02/20 06:41	1
Fluoride	<0.044		0.10	0.044	mg/L			12/02/20 06:41	1
Nitrate as N	<0.023		0.10	0.023	mg/L			12/02/20 06:41	1
Nitrite as N	<0.029		0.050	0.029	mg/L			12/02/20 06:41	1
Sulfate	<0.38		1.0	0.38	mg/L			12/02/20 06:41	1

Lab Sample ID: LCS 180-339100/35
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Nitrate as N	2.50	2.40		mg/L		96	90 - 110
Nitrite as N	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	50.1		mg/L		100	90 - 110

Lab Sample ID: LCS 180-339100/5
Matrix: Water
Analysis Batch: 339100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.6		mg/L		101	90 - 110
Fluoride	2.50	2.28		mg/L		91	90 - 110
Nitrate as N	2.50	2.44		mg/L		98	90 - 110
Nitrite as N	2.50	2.68		mg/L		107	90 - 110
Sulfate	50.0	50.5		mg/L		101	90 - 110

Lab Sample ID: MB 180-339255/6
Matrix: Water
Analysis Batch: 339255

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.044		0.10	0.044	mg/L			12/03/20 09:23	1

Lab Sample ID: LCS 180-339255/5
Matrix: Water
Analysis Batch: 339255

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.41		mg/L		96	90 - 110

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-339431/1-A
Matrix: Water
Analysis Batch: 339788

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		12/04/20 07:38	12/05/20 14:29	1
Iron	<0.020		0.050	0.020	mg/L		12/04/20 07:38	12/05/20 14:29	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		12/04/20 07:38	12/05/20 14:29	1
Manganese	<0.00087		0.0050	0.00087	mg/L		12/04/20 07:38	12/05/20 14:29	1
Barium	<0.0016		0.010	0.0016	mg/L		12/04/20 07:38	12/05/20 14:29	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		12/04/20 07:38	12/05/20 14:29	1
Boron	<0.039		0.080	0.039	mg/L		12/04/20 07:38	12/05/20 14:29	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		12/04/20 07:38	12/05/20 14:29	1
Calcium	<0.13		0.50	0.13	mg/L		12/04/20 07:38	12/05/20 14:29	1
Chromium	<0.0015		0.0020	0.0015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		12/04/20 07:38	12/05/20 14:29	1
Lead	<0.00013		0.0010	0.00013	mg/L		12/04/20 07:38	12/05/20 14:29	1
Lithium	<0.0034		0.0050	0.0034	mg/L		12/04/20 07:38	12/05/20 14:29	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		12/04/20 07:38	12/05/20 14:29	1
Potassium	<0.16		0.50	0.16	mg/L		12/04/20 07:38	12/05/20 14:29	1
Selenium	<0.0015		0.0050	0.0015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Sodium	<0.35		0.50	0.35	mg/L		12/04/20 07:38	12/05/20 14:29	1
Thallium	<0.00015		0.0010	0.00015	mg/L		12/04/20 07:38	12/05/20 14:29	1
Silver	<0.00018		0.0010	0.00018	mg/L		12/04/20 07:38	12/05/20 14:29	1

Lab Sample ID: LCS 180-339431/2-A
Matrix: Water
Analysis Batch: 339788

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.230		mg/L		92	80 - 120
Iron	5.00	4.99		mg/L		100	80 - 120
Arsenic	1.00	0.942		mg/L		94	80 - 120
Manganese	0.500	0.499		mg/L		100	80 - 120
Barium	1.00	0.934		mg/L		93	80 - 120
Beryllium	0.500	0.488		mg/L		98	80 - 120
Boron	1.25	1.15		mg/L		92	80 - 120
Cadmium	0.500	0.486		mg/L		97	80 - 120
Calcium	25.0	28.9		mg/L		116	80 - 120
Chromium	0.500	0.502		mg/L		100	80 - 120
Cobalt	0.500	0.465		mg/L		93	80 - 120
Lead	0.500	0.492		mg/L		98	80 - 120
Lithium	0.500	0.490		mg/L		98	80 - 120
Molybdenum	0.500	0.493		mg/L		99	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Sodium	25.0	25.3		mg/L		101	80 - 120
Thallium	1.00	1.03		mg/L		103	80 - 120
Silver	0.250	0.248		mg/L		99	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-114252-1 MS
Matrix: Water
Analysis Batch: 339788

Client Sample ID: ARGWA-24
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.00038		0.250	0.230		mg/L		92	75 - 125
Iron	0.17		5.00	5.15		mg/L		100	75 - 125
Arsenic	<0.00031		1.00	0.936		mg/L		94	75 - 125
Manganese	0.30		0.500	0.802		mg/L		101	75 - 125
Barium	0.038		1.00	0.966		mg/L		93	75 - 125
Beryllium	<0.00018		0.500	0.482		mg/L		96	75 - 125
Boron	<0.039		1.25	1.13		mg/L		91	75 - 125
Cadmium	<0.00022		0.500	0.488		mg/L		98	75 - 125
Calcium	13		25.0	41.7		mg/L		114	75 - 125
Chromium	<0.0015		0.500	0.500		mg/L		100	75 - 125
Cobalt	0.0058		0.500	0.468		mg/L		92	75 - 125
Lead	<0.00013		0.500	0.491		mg/L		98	75 - 125
Lithium	<0.0034		0.500	0.488		mg/L		98	75 - 125
Molybdenum	<0.00061		0.500	0.493		mg/L		99	75 - 125
Potassium	0.92		25.0	25.0		mg/L		96	75 - 125
Selenium	<0.0015		1.00	1.01		mg/L		101	75 - 125
Sodium	13		25.0	37.3		mg/L		98	75 - 125
Thallium	<0.00015		1.00	1.03		mg/L		103	75 - 125
Silver	<0.00018		0.250	0.246		mg/L		98	75 - 125

Lab Sample ID: 180-114252-1 MSD
Matrix: Water
Analysis Batch: 339788

Client Sample ID: ARGWA-24
Prep Type: Total Recoverable
Prep Batch: 339431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.00038		0.250	0.232		mg/L		93	75 - 125	1	20
Iron	0.17		5.00	5.12		mg/L		99	75 - 125	0	20
Arsenic	<0.00031		1.00	0.926		mg/L		93	75 - 125	1	20
Manganese	0.30		0.500	0.795		mg/L		100	75 - 125	1	20
Barium	0.038		1.00	0.952		mg/L		91	75 - 125	2	20
Beryllium	<0.00018		0.500	0.486		mg/L		97	75 - 125	1	20
Boron	<0.039		1.25	1.20		mg/L		96	75 - 125	6	20
Cadmium	<0.00022		0.500	0.483		mg/L		97	75 - 125	1	20
Calcium	13		25.0	41.2		mg/L		112	75 - 125	1	20
Chromium	<0.0015		0.500	0.496		mg/L		99	75 - 125	1	20
Cobalt	0.0058		0.500	0.466		mg/L		92	75 - 125	0	20
Lead	<0.00013		0.500	0.490		mg/L		98	75 - 125	0	20
Lithium	<0.0034		0.500	0.487		mg/L		97	75 - 125	0	20
Molybdenum	<0.00061		0.500	0.489		mg/L		98	75 - 125	1	20
Potassium	0.92		25.0	24.8		mg/L		95	75 - 125	1	20
Selenium	<0.0015		1.00	0.998		mg/L		100	75 - 125	1	20
Sodium	13		25.0	37.1		mg/L		97	75 - 125	1	20
Thallium	<0.00015		1.00	1.01		mg/L		101	75 - 125	1	20
Silver	<0.00018		0.250	0.247		mg/L		99	75 - 125	0	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-339337/1-A
Matrix: Water
Analysis Batch: 339529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 339337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		12/03/20 10:46	12/04/20 14:50	1

Lab Sample ID: LCS 180-339337/2-A
Matrix: Water
Analysis Batch: 339529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00249		mg/L		100	80 - 120

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-339874/1-A
Matrix: Water
Analysis Batch: 340074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 339874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		12/08/20 12:30	12/08/20 14:14	1

Lab Sample ID: LCS 180-339874/2-A
Matrix: Water
Analysis Batch: 340074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 339874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	14.6	12.9		mg/L		88	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-339351/2
Matrix: Water
Analysis Batch: 339351

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			12/03/20 11:40	1

Lab Sample ID: LCS 180-339351/1
Matrix: Water
Analysis Batch: 339351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	624	618		mg/L		99	80 - 120

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-339624/29
Matrix: Water
Analysis Batch: 339624

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			12/04/20 14:34	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: LCS 180-339624/28
Matrix: Water
Analysis Batch: 339624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	228		mg/L		91	90 - 110		

Lab Sample ID: 180-114252-1 DU
Matrix: Water
Analysis Batch: 339624

Client Sample ID: ARGWA-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	65			64.4		mg/L				1	20
Bicarbonate Alkalinity as CaCO3	65			64.4		mg/L				1	20
Carbonate Alkalinity as CaCO3	<5.0			<5.0		mg/L				NC	20

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

HPLC/IC

Analysis Batch: 339100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 300.0 R2.1	
180-114251-2	EB-01	Total/NA	Water	EPA 300.0 R2.1	
180-114252-1	ARGWA-24	Total/NA	Water	EPA 300.0 R2.1	
180-114252-2	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339100/36	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339100/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339100/35	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339100/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 339255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-1	ARGWA-24	Total/NA	Water	EPA 300.0 R2.1	
MB 180-339255/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-339255/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 339337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	7470A	
180-114251-2	EB-01	Total/NA	Water	7470A	
180-114252-1	ARGWA-24	Total/NA	Water	7470A	
180-114252-2	DUP-1	Total/NA	Water	7470A	
MB 180-339337/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-339337/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 339431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Dissolved	Water	3005A	
180-114251-1	FB-01	Total Recoverable	Water	3005A	
180-114251-2	EB-01	Dissolved	Water	3005A	
180-114251-2	EB-01	Total Recoverable	Water	3005A	
180-114252-1	ARGWA-24	Dissolved	Water	3005A	
180-114252-1	ARGWA-24	Total Recoverable	Water	3005A	
180-114252-2	DUP-1	Dissolved	Water	3005A	
180-114252-2	DUP-1	Total Recoverable	Water	3005A	
MB 180-339431/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-339431/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-114252-1 MS	ARGWA-24	Total Recoverable	Water	3005A	
180-114252-1 MSD	ARGWA-24	Total Recoverable	Water	3005A	

Analysis Batch: 339529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 7470A	339337
180-114251-2	EB-01	Total/NA	Water	EPA 7470A	339337
180-114252-1	ARGWA-24	Total/NA	Water	EPA 7470A	339337
180-114252-2	DUP-1	Total/NA	Water	EPA 7470A	339337
MB 180-339337/1-A	Method Blank	Total/NA	Water	EPA 7470A	339337
LCS 180-339337/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	339337

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Metals

Analysis Batch: 339788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Dissolved	Water	EPA 6020B	339431
180-114251-1	FB-01	Total Recoverable	Water	EPA 6020B	339431
180-114251-2	EB-01	Dissolved	Water	EPA 6020B	339431
180-114251-2	EB-01	Total Recoverable	Water	EPA 6020B	339431
180-114252-1	ARGWA-24	Dissolved	Water	EPA 6020B	339431
180-114252-1	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431
180-114252-2	DUP-1	Dissolved	Water	EPA 6020B	339431
180-114252-2	DUP-1	Total Recoverable	Water	EPA 6020B	339431
MB 180-339431/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	339431
LCS 180-339431/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	339431
180-114252-1 MS	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431
180-114252-1 MSD	ARGWA-24	Total Recoverable	Water	EPA 6020B	339431

General Chemistry

Analysis Batch: 339351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	SM 2540C	
180-114251-2	EB-01	Total/NA	Water	SM 2540C	
180-114252-1	ARGWA-24	Total/NA	Water	SM 2540C	
180-114252-2	DUP-1	Total/NA	Water	SM 2540C	
MB 180-339351/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-339351/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 339624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	SM2320 B	
180-114251-2	EB-01	Total/NA	Water	SM2320 B	
180-114252-1	ARGWA-24	Total/NA	Water	SM2320 B	
180-114252-2	DUP-1	Total/NA	Water	SM2320 B	
MB 180-339624/29	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-339624/28	Lab Control Sample	Total/NA	Water	SM2320 B	
180-114252-1 DU	ARGWA-24	Total/NA	Water	SM2320 B	

Prep Batch: 339874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	9030B	
180-114251-2	EB-01	Total/NA	Water	9030B	
180-114252-1	ARGWA-24	Total/NA	Water	9030B	
180-114252-2	DUP-1	Total/NA	Water	9030B	
MB 180-339874/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-339874/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 340074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	EPA 9034	339874
180-114251-2	EB-01	Total/NA	Water	EPA 9034	339874
180-114252-1	ARGWA-24	Total/NA	Water	EPA 9034	339874
180-114252-2	DUP-1	Total/NA	Water	EPA 9034	339874
MB 180-339874/1-A	Method Blank	Total/NA	Water	EPA 9034	339874
LCS 180-339874/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	339874

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-1

Field Service / Mobile Lab

Analysis Batch: 340575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-1	ARGWA-24	Total/NA	Water	Field Sampling	
180-114252-2	DUP-1	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins Environment Testing

244- ATLANTA

Client Information	Sampler: Daniel Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested: standard TAT			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals Cast. 17+Hg 6020B/7470	Dissolved Fe, Mn 6020B	NO2/NO3, Cl, F, SO4 300.0_ORGFM_28D	Alk. 2320B	TDS 2540C	Sulfide 9034	Radium 226/228 (9315/9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	D	N	N	N	B,C	D	X	
FB-01	12/1/20	1140	G	W			X	X	X	X	X	X	X	7	
EB-01	12/1/20	1155	G	W	Y		X	X	X	X	X	X	X	7	

180-114251 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Daniel R Howard	12/1/20 1720	Wood		12/2/20 1030	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: Daniel Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power		Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested: standard TAT			Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			Other:
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals Custom 17+Hg 6020B/7470	Dissolved Fe, Mn 6020B	NO2,NO3,Cl,F,SO4 300.0 REFM +28D	Alk 2320B	TDS 2540C	Sulfide 9034	Radium 226/228 (9315/9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	N	B,C	D		
ARGWA-24	12/1/20	1352	G	W	Y		X	X	X	X	X	X	X	7	pH = 5.85
DUP-1	12/1/20	—	G	W	Y		X	X	X	X	X	X	X	7	pH = 5.85

180-114252 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	12/1/20 / 1720	Wood		12/2/20 1030	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWGT: 54.85 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058 REF:

INV:
PO: DEPT:

FedEx Express

TRK# 0215 8121 9394 6182

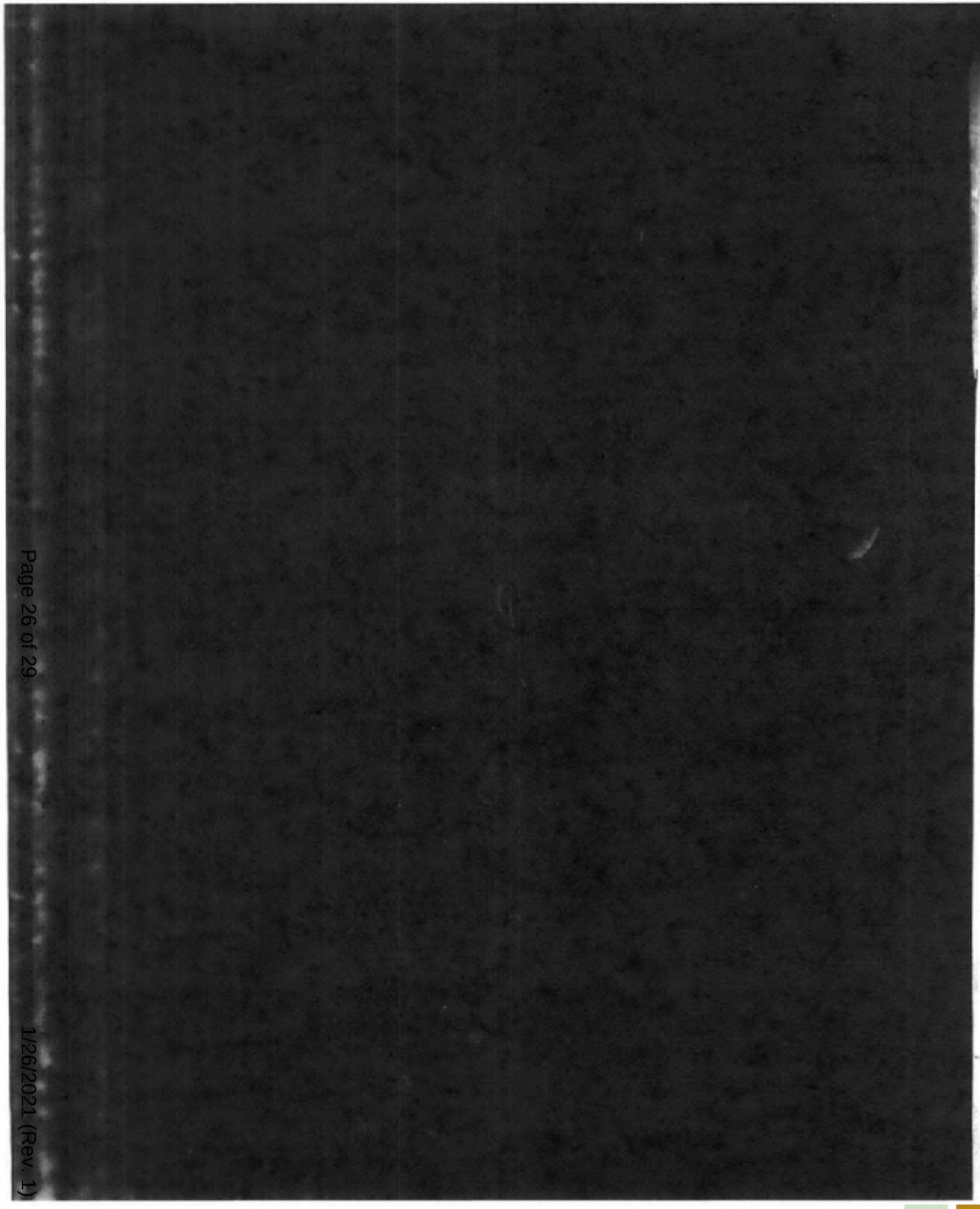
WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT

Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JB

PT-WI-SR-001 effective 7/26/13



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWGT: 58.60 LB
CAD: 6884493/SSFE2121
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0215 8121 9394 6171

WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT

Uncorrected temp 4.1 °C
Thermometer ID 14
CF 0 Initials JI

PT-WI-SR-001 effective 7/26/13

180-114252 Waybill

Part # 156[illegible] 10/21

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-420927.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin: Georgia	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-114251-2
Address: 13715 Rider Trail North,	Due Date Requested: 1/6/2021			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Arkwright	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium 228	Ra226/Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
FB-01 (180-114251-1)	12/1/20	11:40 Eastern		Water			X	X	X	2	
EB-01 (180-114251-2)	12/1/20	11:55 Eastern		Water			X	X		2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 12/3/20 1500	Company: ETA-STL	Received by: Fed EX	Date/Time:	Company
Relinquished by: Fed EX	Date/Time:	Company	Received by: Mallory A Sara	Date/Time: 12/4/20 09:30	Company: ETA-STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-1

Login Number: 114251
List Number: 1
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-1

Login Number: 114252
List Number: 1
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-114251-2
Client Project/Site: CCR - Plant Arkwright

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
1/19/2021 12:07:45 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

Table of Contents

Job ID: 180-114251-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-114251-2

Comments
No additional comments.

Receipt
The samples were received on 12/2/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.8º C and 4.1º C.

RAD
Methods 903.0, 9315: Radium-226 prep batch 160-491155:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1)

Methods 903.0, 9315: 903 prep batch 491155
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1)

Method 9315: Ra226 prep batch 491023
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-114252-2), (LCS 160-491023/1-A) and (MB 160-491023/11-A)

Methods 904.0, 9320: 904 / 9320 Prep batch 491152
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-1 (180-114252-2), (LCS 160-491152/1-A), (MB 160-491152/11-A) and (160-40576-C-1-B DU)

Method 9320: 9320 prep batch 493913
The following sample(s) exhibited a negative result greater in magnitude than the 3 sigma TPU. This occurrence was evaluated and determined to be random in nature. Sporadic occurrences such as this are statistically expected. No further action is required. FB-01 (180-114251-1)

Methods 904.0, 9320: 9320 prep batch 493913
The daily check and background were mistakenly not run on the same day the LCSD was run. The day before and after the daily check and background were run and passed within their QC limits. Additionally the only sample affected was the LCSD which also passed its QC criteria showing no adverse affect from the discrepancy. (LCSD 160-493913/2-A)

Methods 904.0, 9320: 9320 prep batch 493913
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (180-114251-1), EB-01 (180-114251-2), ARGWA-24 (180-114252-1), (LCS 160-493913/1-A), (LCSD 160-493913/2-A) and (MB 160-493913/8-A)

Method PrecSep_0: Radium 228 Prep Batch 160-493913:
Insufficient sample volume was available to perform a sample duplicate for the following samples: FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-493913:
The following samples were prepared at a reduced aliquot due to re extract of the samples: FB-01 (180-114251-1), EB-01 (180-114251-2) and ARGWA-24 (180-114252-1). Sample 180-114118-B-5 contained a yellow discoloration and a cloudy appearance:

Job ID: 180-114251-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	12-31-20 *
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-114251-1	FB-01	Water	12/01/20 11:40	12/02/20 10:30	
180-114251-2	EB-01	Water	12/01/20 11:55	12/02/20 10:30	
180-114252-1	ARGWA-24	Water	12/01/20 13:52	12/02/20 10:30	
180-114252-2	DUP-1	Water	12/01/20 00:00	12/02/20 10:30	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: FB-01
Date Collected: 12/01/20 11:40
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.95 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			750.58 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: EB-01
Date Collected: 12/01/20 11:55
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.91 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			749.09 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-24
Date Collected: 12/01/20 13:52
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.78 mL	1.0 g	491155	12/08/20 09:55	KMP	TAL SL
Total/NA	Analysis	9315		1			493656	12/31/20 18:12	SCB	TAL SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			749.38 mL	1.0 g	493913	01/05/21 11:27	AVB	TAL SL
Total/NA	Analysis	9320		1			494758	01/12/21 13:00	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			495059	01/14/21 09:26	CAH	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1
Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.68 mL	1.0 g	491023	12/07/20 15:39	KMP	TAL SL
Total/NA	Analysis	9315		1			494639	01/11/21 18:51	SCB	TAL SL
	Instrument ID: GFPCRED									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: DUP-1
Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			999.68 mL	1.0 g	491152	12/08/20 09:03	KMP	TAL SL
Total/NA	Analysis	9320		1			494651	01/11/21 13:25	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			495678	01/19/21 11:42	CAH	TAL SL
	Instrument ID: NOEQUIP									

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

Batch Type: Prep

AVB = Amber Bleem

KMP = Karen Phillips

Batch Type: Analysis

CAH = Chris Hough

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: FB-01

Date Collected: 12/01/20 11:40
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0503	U	0.0949	0.0950	1.00	0.171	pCi/L	12/08/20 09:55	12/31/20 18:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.7*		*40 - 110*	*12/08/20 09:55*	*12/31/20 18:12*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.391	U	0.247	0.250	1.00	0.524	pCi/L	01/05/21 11:27	01/12/21 13:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*40 - 110*	*01/05/21 11:27*	*01/12/21 13:00*	*1*
Y Carrier	*84.5*		*40 - 110*	*01/05/21 11:27*	*01/12/21 13:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.341	U	0.265	0.267	5.00	0.524	pCi/L		01/14/21 09:26	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: EB-01
Date Collected: 12/01/20 11:55
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114251-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0489	U	0.103	0.103	1.00	0.186	pCi/L	12/08/20 09:55	12/31/20 18:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*12/08/20 09:55*	*12/31/20 18:12*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00921	U	0.283	0.283	1.00	0.510	pCi/L	01/05/21 11:27	01/12/21 13:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*40 - 110*	*01/05/21 11:27*	*01/12/21 13:00*	*1*
Y Carrier	*85.6*		*40 - 110*	*01/05/21 11:27*	*01/12/21 13:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0581	U	0.301	0.301	5.00	0.510	pCi/L		01/14/21 09:26	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Client Sample ID: ARGWA-24

Date Collected: 12/01/20 13:52
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.109	0.110	1.00	0.173	pCi/L	12/08/20 09:55	12/31/20 18:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.5*		*40 - 110*	*12/08/20 09:55*	*12/31/20 18:12*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.113	U	0.297	0.297	1.00	0.551	pCi/L	01/05/21 11:27	01/12/21 13:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*01/05/21 11:27*	*01/12/21 13:00*	*1*
Y Carrier	*84.5*		*40 - 110*	*01/05/21 11:27*	*01/12/21 13:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0123	U	0.316	0.317	5.00	0.551	pCi/L		01/14/21 09:26	1

Client Sample ID: DUP-1

Date Collected: 12/01/20 00:00
Date Received: 12/02/20 10:30

Lab Sample ID: 180-114252-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0714	U	0.179	0.179	1.00	0.332	pCi/L	12/07/20 15:39	01/11/21 18:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.4*		*40 - 110*	*12/07/20 15:39*	*01/11/21 18:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.453	U	0.298	0.301	1.00	0.458	pCi/L	12/08/20 09:03	01/11/21 13:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.4*		*40 - 110*	*12/08/20 09:03*	*01/11/21 13:25*	*1*
Y Carrier	*79.3*		*40 - 110*	*12/08/20 09:03*	*01/11/21 13:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.524**		0.348	0.350	5.00	0.458	pCi/L		01/19/21 11:42	1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-491023/11-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491023

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01970	U	0.184	0.184	1.00	0.376	pCi/L	12/07/20 15:39	01/11/21 21:00	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*40 - 110*	*12/07/20 15:39*	*01/11/21 21:00*	*1*

Lab Sample ID: LCS 160-491023/1-A
Matrix: Water
Analysis Batch: 494639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491023

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.20		1.34	1.00	0.304	pCi/L	90	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.2*		*40 - 110*

Lab Sample ID: MB 160-491155/22-A
Matrix: Water
Analysis Batch: 493757

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491155

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02736	U	0.0899	0.0899	1.00	0.173	pCi/L	12/08/20 09:55	01/04/21 08:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.9*		*40 - 110*	*12/08/20 09:55*	*01/04/21 08:22*	*1*

Lab Sample ID: LCS 160-491155/1-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491155

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	14.10		1.62	1.00	0.244	pCi/L	93	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.2*		*40 - 110*

Lab Sample ID: LCSD 160-491155/2-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 491155

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			15.1	13.41		1.58	1.00	0.297	pCi/L	89	75 - 125	0.21	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-491155/2-A
Matrix: Water
Analysis Batch: 493656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 491155

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	76.5		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-491152/11-A
Matrix: Water
Analysis Batch: 494651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491152

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3653	U	0.332	0.334	1.00	0.535	pCi/L	12/08/20 09:03	01/11/21 13:26	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		40 - 110	12/08/20 09:03	01/11/21 13:26	1
Y Carrier	79.3		40 - 110	12/08/20 09:03	01/11/21 13:26	1

Lab Sample ID: LCS 160-491152/1-A
Matrix: Water
Analysis Batch: 494651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491152

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.51	7.866		1.01	1.00	0.484	pCi/L	105	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.2		40 - 110
Y Carrier	79.3		40 - 110

Lab Sample ID: MB 160-493913/8-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 493913

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2265	U	0.308	0.309	1.00	0.514	pCi/L	01/05/21 11:27	01/12/21 13:01	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		40 - 110	01/05/21 11:27	01/12/21 13:01	1
Y Carrier	81.1		40 - 110	01/05/21 11:27	01/12/21 13:01	1

Lab Sample ID: LCS 160-493913/1-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493913

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.0	10.57		1.33	1.00	0.587	pCi/L	106	75 - 125		

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-493913/1-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 493913

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	81.3		40 - 110
Y Carrier	85.2		40 - 110

Lab Sample ID: LCSD 160-493913/2-A
Matrix: Water
Analysis Batch: 494758

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 493913

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			10.0	9.576		1.23	1.00	0.584	pCi/L	96	75 - 125	0.39	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	82.9		40 - 110
Y Carrier	84.5		40 - 110

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright

Job ID: 180-114251-2

Rad

Prep Batch: 491023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-2	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-491023/11-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-491023/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 491152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114252-2	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-491152/11-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-491152/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 491155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	PrecSep-21	
180-114251-2	EB-01	Total/NA	Water	PrecSep-21	
180-114252-1	ARGWA-24	Total/NA	Water	PrecSep-21	
MB 160-491155/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-491155/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-491155/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 493913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-114251-1	FB-01	Total/NA	Water	PrecSep_0	
180-114251-2	EB-01	Total/NA	Water	PrecSep_0	
180-114252-1	ARGWA-24	Total/NA	Water	PrecSep_0	
MB 160-493913/8-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-493913/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-493913/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins Environment Testing

244- ATLANTA

Client Information	Sampler: Daniel Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested: standard TAT			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals Cast. 17+Hg 6020B/7470	Dissolved Fe, Mn 6020B	NO2/NO3, Cl, F, SO4 300.0_ORGFM_28D	Alk. 2320B	TDS 2540C	Sulfide 9034	Radium 226/228 (9315/9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	D	N	N	N	B,C	D	X	
FB-01	12/1/20	1140	G	W			X	X	X	X	X	X	X	7	
EB-01	12/1/20	1155	G	W	Y		X	X	X	X	X	X	X	7	

180-114251 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Daniel R Howard	12/1/20 1720	Wood		12/2/20 1030	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: Daniel Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power		Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested: standard TAT			Preservation Codes:
City: Atlanta	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			Other:
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals Custom 17+Hg 6020B/7470	Dissolved Fe, Mn 6020B	NO2,NO3,Cl,F,SO4 300.0 REFM +28D	Alk 2320B	TDS 2540C	Sulfide 9034	Radium 226/228 (9315/9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	N	B,C	D		
ARGWA-24	12/1/20	1352	G	W	Y		X	X	X	X	X	X	X	7	pH = 5.85
DUP-1	12/1/20	—	G	W	Y		X	X	X	X	X	X	X	7	pH = 5.85

180-114252 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Howard	12/1/20 / 1720	Wood		12/2/20 1030	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWGT: 54.85 LB
CAD: 6994493/SSFE2121
DIMS: 24x13x14 IN

BILL THIRD PARTY

Part # 156029-[illegible] REV 10/21

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058 REF:

INV:
PO: DEPT:

FedEx Express

TRK# 0215 8121 9394 6182

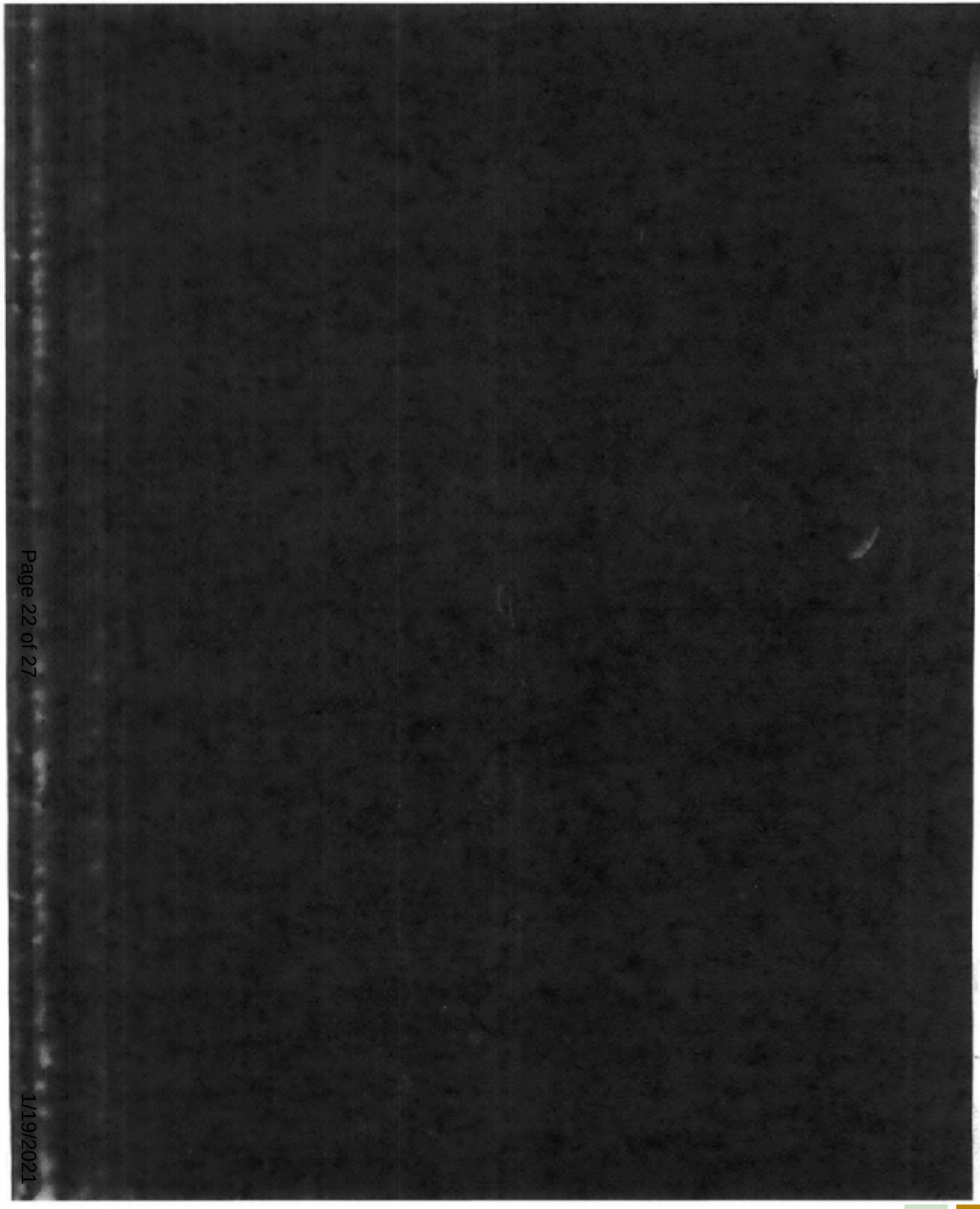
WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT

Uncorrected temp 3.8 °C
Thermometer ID 14
CF 0 Initials JB

PT-WI-SR-001 effective 7/26/13



Do Not Lift Using This Tag

ORIGIN ID:MCNA (770) 421-3400
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 01DEC20
ACTWGT: 58.60 LB
CAD: 6884493/SSFE2121
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058 REF:

INV:
PO: DEPT:

FedEx Express

TRK# 0215 8121 9394 6171

WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

NA AGCA

15238
PA-US PIT

Uncorrected temp 4.1 °C
Thermometer ID 14

CF 0 Initials JI

PT-WI-SR-001 effective 7/26/13

180-114252 Waybill

Part # 156[illegible] 10/21

1/19/2021

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-420927.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin: Georgia	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-114251-2
Address: 13715 Rider Trail North,	Due Date Requested: 1/6/2021			Preservation Codes:
City: Earth City	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Arkwright	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium 228	Ra226/Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
FB-01 (180-114251-1)	12/1/20	11:40 Eastern		Water			X	X	X	2	
EB-01 (180-114251-2)	12/1/20	11:55 Eastern		Water			X	X		2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 12/3/20 1500	Company: ETA-STL	Received by: Fed EX	Date/Time:	Company
Relinquished by: Fed EX	Date/Time:	Company	Received by: Mallory A Sara	Date/Time: 12/4/20 09:30	Company: ETA-STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114251
List Number: 1
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114251
List Number: 2
Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis
List Creation: 12/04/20 01:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114252
List Number: 1
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-114251-2

Login Number: 114252
List Number: 2
Creator: O'Gara, Mallory L

List Source: Eurofins TestAmerica, St. Louis
List Creation: 12/04/20 01:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Georgia Power Site Sampling Data (GW)

Site Name: Plant Arkwright — AP2 + AP3 — Date: 11/30/20 - 12/1/20

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
ARAMW-7	11/30/20	1530				
ARAMW-8	12/1/20	1005				
FB-01	12/1/20	1140	FB-01			Field Blank for Ash Ponds 2+3
EB-01	12/1/20	1155		EB-01		Equip Blank of tubing used with peristaltic pump
ARGWA-24	12/1/20	1352				
DUP-1	12/1/20	—			ARGWA-24	Duplicate of ARGWA-24 (DUP-1)

Additional comments: Equip. Blank EB-01 was collected from the HDPE tubing used with the peristaltic pump. Tubing Lot #12759-05. Deionized water used ASTM Type I water meeting ASTM D5196 specifications. Field Blank FB-01 was taken using ASTM Type I deionized water meeting ASTM D5196 specification.

Product Name: Low-Flow System

Date: 2020-12-01 13:53:42

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	Peristaltic
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright CCR AP 3	Tubing Diameter	.17 in
Site Name	ARGWA-24	Tubing Length	28 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	24.16 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-24	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2149758 L
Well Total Depth	28.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	20.19 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:29:17	600.03	18.22	5.86	172.47	4.50	20.25	1.34	182.31
Last 5	13:34:17	900.03	18.57	5.85	175.62	2.75	20.25	1.39	169.33
Last 5	13:39:17	1200.03	18.48	5.85	176.68	1.96	20.25	1.39	160.59
Last 5	13:44:17	1500.03	18.52	5.85	178.61	1.51	20.25	1.40	147.90
Last 5	13:49:17	1800.03	18.74	5.85	178.86	1.14	20.25	1.45	139.83
Variance 0			-0.09	-0.00	1.06			0.01	-8.74
Variance 1			0.05	0.01	1.93			0.01	-12.69
Variance 2			0.22	-0.00	0.24			0.06	-8.07

Notes

ARGWA-24 sample time1352. Also collected DUP-1.

Grab Samples

Date: 12/1/20
Time: 0535
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: _____
Pine Handset ID: 5/2733
Battery Voltage %: 85

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No ✓ Date: __ Time:	
Current Air Temperature °C (meter reading):		23.6
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.0
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	
DO concentration after Calibration (mg/L):		7.78
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	92.5
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0819

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 19410200	1.413
Temperature (°C)		23.2
Reading before Calibration (mS/cm)		1.380
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1.0239

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot 19340057 8/21	7.14
pH 7.0 value after calibration:	22.7°C	7.00
pH 7.0 mV **(range is -50 to +50 mV)**:		-8.5
pH 10 value before calibration:	Lot 19320102 8/21	10.05
pH 10 value after calibration:	21.9°C	10.04
pH 10 mV **(range is -130 to -230 mV)**:		-182.2
pH 4.0 value before calibration:	Lot 20010025 8/21	4.23
pH 4.0 value after calibration:	22.1°C	4.00
pH 4.0 mV **(range is 130 to 230 mV)**:		165.3

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 8/21	22.3
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	233
Reading before calibration (mV):		227.3
Reading after calibration (mV):		233.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard	Before Cal:	After Cal:	20.1
100 NTU Turbidity Standard	Before Cal:	After Cal:	102
800 NTU Turbidity Standard Lot A8155	Before Cal:	After Cal:	798
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.70
__ NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			

Hach 2100 Q IO : S/N 15030C039370

Data Evaluation Narrative
Project: Plant Arkwright AP3 Background and Delineation Sampling
Wood Project Number: 6122201429.2003.**
Site: Ash Pond No. 3 Ash Monofill – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-114251-2 (Radium)

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Background and Delineation groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofill) at the former Plant Arkwright, located in Arkwright, Georgia in December 2020 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control (QC) criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-114251-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and QC samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3			**QC Samples**		
ARGWA-24	12/01/20	II	FB-01	12/01/20	II
			EB-01	12/01/20	II
			DUP-1	12/01/20	II

These samples were collected from the newly installed Ash Pond No. 3 monitoring wells listed above on December 1, 2020. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-1 is a field duplicate of ARGWC-24. Samples FB-01 and EB-01 are field and equipment blanks collected on the peristatic pump tubing used during this event.

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits except for method blank contamination and LCS recoveries.

Holding Times

The sample analyses were performed within the 6 months analysis holding times.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-226 or radium-228 above the minimum detected concentration (MDC) indicating no interference from the analytical systems.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits.

Laboratory Duplicate Precision

Laboratory duplicate analyses were not performed with this SDG.

Field Duplicate Precision

One field duplicate pair (ARGWA-24/DUP-1) was submitted, and the RER could not be calculated because the results in both samples were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The equipment blank (EB-01) and field blank (FB-01) did not contain radium-226 or radium-228 above the MDC.

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value verses the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 1 well, along with the required QC samples, were sampled and analyzed during the December 2020 event in Ash Pond No. 3 according to the FSP. The well location along with field duplicate, equipment blank, and field blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 01/28/2021
Checked by/Date: DLH 02/02/2021

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-114251-2
SAMPLING DATE: December 1, 2020
Plant Arkwright Ash Pond No. 3 Background and Delineation Sampling

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
No qualification was required										

Notes:
No qualification was required for the data reported in this sample delivery group.

Prepared by/Date: DWK 01/28/21
Checked by/Date: DLH 02/2/21

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Background and Delineation
Project No: 6122201429.2003.****
Method: Radium-226, Radium-228 and Combined Radium by Methods 9315 and 9320
Laboratory and Lot: TAL PIT SDG: 180-114251-2
Reviewer/Date: D. Knaub 01/28/21 **Senior Reviewer/Date:** D. Howard 02/02/2021

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK – Samples anal. @ TAL-St. Louis	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)** OK, 3.8 and 4.1° C.	
X			**Holding times met (180 days)** Collected: 12/01/20 Ra-226: prep: 12/08/20, 12/07/20 anal: 12/31/20, 01/11/21 Ra 228: prep: 01/05/21, 12/08/20 anal: 01/12/21, 01/11/21 Ra, combined: anal: 01/14/21, 01/19/21	
X			**QC Blanks Review (net blank value <MDC)** Ra-226 p. 15 MB 160-491023/11-A Ra-226 < MDC p. 15 MB 160-491155/22-A Ra-226 < MDC Ra-228 p. 16 MB 160-491152/11-A Ra-228 < MDC p. 16 MB 160-493913/8-A Ra-228 < MDC Equipment Blanks: (peri. tubing) EB-01 - All < MDC Field Blanks: (DI water) FB-01 - All < MDC	
X			**Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3)** Ra-226 p. 15 LCS 160-491023/1-A Ra-226 = 90% p. 15 LCS/LCSD 160-491155/1-A, 2-A Ra-226 = 93%, 89%, RER = 0.21 Ra-228 p. 16 LCS 160-491152/1-A, Ra-228 = 105% p. 16 LCS/LCSD 160-493913/1-A, 2-A Ra-228 = 106%, 96%, RER = 0.39	

YES	NO	NA		COMMENTS
X			**Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)**	
			Field Duplicate: ARGWA-24 = DUP-1-	
			Ra-226 *<MDC* *<MDC* *NC*	
			Ra-226 *<MDC* *<MDC* *NC*	
			Ra, total *<MDC* *<MDC* *NC*	
		X	**Matrix Spike recoveries and RPDs within limits (if applicable)** NA	
X			**Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba);** *All OK*	
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)** 100% of results were confirmed	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-116980-1
Client Project/Site: CCR - Plant Arkwright AP-3
Sampling Event: ARKWRIGHT AP-3 initial scan

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
3/1/2021 5:49:49 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Job ID: 180-116980-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-116980-1

Comments
No additional comments.

Receipt
The samples were received on 2/10/2021 9:00 AM, 2/11/2021 9:30 AM and 2/12/2021 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 1.2º C, 2.3º C, 2.4º C, 2.4º C, 2.6º C, 2.9º C, 3.5º C and 3.5º C.

GC Semi VOA
Method 300.0: The following sample was received with less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: DUP-1 (180-116987-3).

Method 300.0: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 180-346231 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-346231 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6020B: The continuing calibration verification (CCV) associated with batch 180-347383 recovered above the upper control limit for boron. The sample associated with this CCV was below the reporting limit (RL); therefore, the data has been reported. The associated sample is impacted: ARGWA-14 (180-117100-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 2320B: The laboratory control sample (LCS) for analytical batch 180-346799 recovered outside control limits for alkalinity. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method SM 2540C: Sample used for this TDS analysis arrived preserved, sample was reanalyzed using an unpreserved container: ARGWC-17 (180-116988-3) The TDS container has a pH <2 indicating sample was preserved; however, there was no indication on the labels that preservation was used.

Method SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time - the original analysis was conducted on a preserved sample, reanalysis on an unpreserved sample was necessary : ARGWC-17 (180-116988-3). Both results have been reported.

Method 9030B: The following sample was received at the laboratory unpreserved. According to the SOP all aqueous samples for this method should be preserved with NaOH and ZnAc with a pH above 12. ARGWA-14 (180-117100-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Job ID: 180-116980-1
Project/Site: CCR - Plant Arkwright AP-3

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20 *
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-116980-1	ARGWA-13	Water	02/09/21 11:52	02/10/21 09:00	
180-116980-2	FB-1	Water	02/09/21 09:40	02/10/21 09:00	
180-116983-1	ARGWA-5	Water	02/09/21 11:40	02/10/21 09:00	
180-116983-2	ARGWA-3	Water	02/09/21 13:55	02/10/21 09:00	
180-116983-3	ARGWC-16	Water	02/09/21 15:35	02/10/21 09:00	
180-116987-1	ARGWA-12	Water	02/09/21 10:10	02/10/21 09:00	
180-116987-2	ARGWA-24	Water	02/09/21 12:25	02/10/21 09:00	
180-116987-3	DUP-1	Water	02/09/21 00:00	02/10/21 09:00	
180-116987-4	ARAMW-6	Water	02/09/21 15:30	02/10/21 09:00	
180-116988-1	ARGWC-10	Water	02/09/21 16:30	02/10/21 09:00	
180-116988-2	ARGWC-15	Water	02/09/21 12:15	02/10/21 09:00	
180-116988-3	ARGWC-17	Water	02/09/21 14:30	02/10/21 09:00	
180-117033-2	ARGWC-8	Water	02/10/21 10:15	02/11/21 09:30	
180-117034-1	ARAMW-3	Water	02/10/21 09:25	02/11/21 09:30	
180-117034-2	ARAMW-4	Water	02/10/21 11:45	02/11/21 09:30	
180-117034-3	ARGWC-7	Water	02/10/21 14:30	02/11/21 09:30	
180-117035-1	EB-1	Water	02/10/21 09:35	02/11/21 09:30	
180-117035-2	ARGWC-18	Water	02/10/21 12:00	02/11/21 09:30	
180-117035-3	ARGWC-9	Water	02/10/21 15:35	02/11/21 09:30	
180-117100-1	ARGWC-16	Water	02/11/21 14:00	02/12/21 08:45	
180-117100-2	ARGWC-18	Water	02/11/21 12:35	02/12/21 08:45	
180-117100-3	ARGWC-9	Water	02/11/21 13:50	02/12/21 08:45	
180-117100-4	ARGWA-3	Water	02/11/21 12:50	02/12/21 08:45	
180-117100-5	ARGWA-5	Water	02/11/21 13:15	02/12/21 08:45	
180-117100-6	ARGWA-14	Water	02/11/21 14:58	02/12/21 08:45	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM2320 B	Alkalinity, Total	SM18	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-13

Date Collected: 02/09/21 11:52
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	346231	02/11/21 08:02	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Analysis	EPA 300.0 R2.1		5	1 mL	1.0 mL	346231	02/11/21 08:19	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 16:56	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 12:36	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 14:52	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 13:25	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			347771	02/09/21 11:52	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: FB-1

Date Collected: 02/09/21 09:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	346231	02/11/21 07:46	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:00	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 12:40	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	347613	02/25/21 08:39	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347773	02/26/21 11:39	KHM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 14:54	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346428	02/12/21 12:18	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 13:34	REI	TAL PIT
	Instrument ID: PCTITRATOR									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-5
Date Collected: 02/09/21 11:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346231	02/11/21 08:59	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 12:43	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 14:56	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346428	02/12/21 12:18	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 14:01	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 11:40	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-3
Date Collected: 02/09/21 13:55
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346231	02/11/21 09:16	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 12:47	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:01	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346428	02/12/21 12:18	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 14:10	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 13:55	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-16
Date Collected: 02/09/21 15:35
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346231	02/11/21 09:32	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 12:50	RSK	TAL PIT
	Instrument ID: A									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-16

Date Collected: 02/09/21 15:35
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:03	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346428	02/12/21 12:18	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 14:19	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 15:35	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-12

Date Collected: 02/09/21 10:10
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 07:53	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:11	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 12:54	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:05	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 16:13	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 10:10	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-24

Date Collected: 02/09/21 12:25
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 08:09	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:15	RSK	TAL PIT
	Instrument ID: A									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-24

Date Collected: 02/09/21 12:25
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 12:58	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			25 mL	25 mL	346287	02/11/21 12:26	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347002	02/18/21 12:03	KHM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:07	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 16:22	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 12:25	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1

Date Collected: 02/09/21 00:00
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 08:40	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:18	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 13:09	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			25 mL	25 mL	346287	02/11/21 12:26	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347002	02/18/21 12:04	KHM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:09	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 16:49	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 00:00	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARAMW-6

Date Collected: 02/09/21 15:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 08:24	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:22	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 13:12	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:11	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 16:58	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 15:30	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-10

Date Collected: 02/09/21 16:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 10:10	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:25	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 13:16	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:13	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 17:07	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 16:30	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-15

Date Collected: 02/09/21 12:15
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 09:22	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:29	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 13:20	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:15	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346651	02/13/21 17:16	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 12:15	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-17

Date Collected: 02/09/21 14:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 10:57	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346794	02/17/21 07:45	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 17:33	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346793	02/17/21 07:43	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 13:23	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346413	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346511	02/12/21 15:17	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	346425	02/12/21 12:15	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	347676	02/25/21 14:46	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			347175	02/19/21 21:47	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/09/21 14:30	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-8

Date Collected: 02/10/21 10:15
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117033-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 16:11	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347383	02/19/21 21:32	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347383	02/19/21 21:29	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346914	02/18/21 05:36	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347575	02/24/21 12:59	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346416	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346513	02/12/21 15:39	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346820	02/17/21 10:34	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 13:30	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/10/21 10:15	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-3

Date Collected: 02/10/21 09:25
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 14:18	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 14:46	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 15:37	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346416	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346513	02/12/21 15:48	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346820	02/17/21 10:34	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 13:48	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/10/21 09:25	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARAMW-4

Date Collected: 02/10/21 11:45
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 15:39	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 300.0 R2.1		10			346228	02/11/21 15:55	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 14:50	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 15:51	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346416	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346513	02/12/21 15:50	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346820	02/17/21 10:34	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 13:57	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/10/21 11:45	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-7

Date Collected: 02/10/21 14:30
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 14:34	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 15:11	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 15:55	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346416	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346513	02/12/21 15:52	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346849	02/17/21 13:17	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 14:05	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/10/21 14:33	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: EB-1

Date Collected: 02/10/21 09:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 18:38	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Dissolved	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347047	02/18/21 15:15	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 15:59	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			25 mL	25 mL	346437	02/12/21 13:22	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			347409	02/23/21 11:11	KHM	TAL PIT
	Instrument ID: HGY									
Total/NA	Prep	9030B			50 mL	50 mL	346416	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346513	02/12/21 15:54	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346849	02/17/21 13:17	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 14:33	REI	TAL PIT
	Instrument ID: PCTITRATOR									

Client Sample ID: ARGWC-18

Date Collected: 02/10/21 12:00
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 18:06	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	EPA 300.0 R2.1		5			346228	02/11/21 18:22	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 16:02	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346416	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346513	02/12/21 16:01	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346820	02/17/21 10:34	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 14:51	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/10/21 12:00	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-9
Date Collected: 02/10/21 15:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			346228	02/11/21 14:50	EPS	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346842	02/17/21 12:02	TJO	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347047	02/18/21 16:06	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346416	02/12/21 13:00	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			346513	02/12/21 16:04	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	346820	02/17/21 10:34	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 15:00	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346598	02/10/21 15:35	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-16
Date Collected: 02/11/21 14:00
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347383	02/19/21 23:10	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	Field Sampling		1			346556	02/11/21 14:00	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-18
Date Collected: 02/11/21 12:35
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347383	02/19/21 23:13	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	Field Sampling		1			346556	02/11/21 12:35	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-9
Date Collected: 02/11/21 13:50
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347383	02/19/21 23:17	RSK	TAL PIT
	Instrument ID: A									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-9
Date Collected: 02/11/21 13:50
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			346556	02/11/21 13:50	FDS	TAL PIT

Client Sample ID: ARGWA-3
Date Collected: 02/11/21 12:50
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347383	02/19/21 23:21	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	Field Sampling		1			346556	02/11/21 12:50	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-5
Date Collected: 02/11/21 13:15
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Dissolved	Analysis	EPA 6020B		1			347383	02/19/21 23:24	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	Field Sampling		1			346556	02/11/21 13:15	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-14
Date Collected: 02/11/21 14:58
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	346366	02/12/21 16:48	EPS	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347383	02/19/21 23:28	RSK	TAL PIT
	Instrument ID: A									
Total Recoverable	Prep	3005A			50 mL	50 mL	346981	02/18/21 11:38	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			347728	02/25/21 14:59	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	9030B			50 mL	50 mL	346996	02/18/21 12:27	CMR	TAL PIT
Total/NA	Analysis	EPA 9034		1			347087	02/18/21 16:30	CMR	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	347022	02/18/21 15:55	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM2320 B		1			346799	02/16/21 18:53	REI	TAL PIT
	Instrument ID: PCTITRATOR									
Total/NA	Analysis	Field Sampling		1			346556	02/11/21 14:58	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

CMR = Carl Reagle
KEM = Kimberly Mahoney
KHM = Kyle Mucroski
MM1 = Mary Beth Miller
RJR = Ron Rosenbaum
TJO = Tyler Oliver

Batch Type: Analysis

CMR = Carl Reagle
EPS = Evan Scheuer
FDS = Sampler Field
GRB = Gabriel Berghe
KHM = Kyle Mucroski
KMM = Kendric Moore
REI = Rachel Innocenzi
RSK = Robert Kurtz
SAT = Stephen Tallam

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-13

Date Collected: 02/09/21 11:52
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.0**		1.0	0.71	mg/L			02/11/21 08:02	1
Fluoride	**0.036**	**J**	0.10	0.026	mg/L			02/11/21 08:02	1
Nitrate as N	**2.0**		0.10	0.023	mg/L			02/11/21 08:02	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 08:02	1
Sulfate	**520**		5.0	3.8	mg/L			02/11/21 08:19	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 12:36	1
Barium	**0.022**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 12:36	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 12:36	1
Boron	**0.38**		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 12:36	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 12:36	1
Calcium	**110**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 12:36	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 12:36	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 12:36	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 12:36	1
Lithium	**0.0054**		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 12:36	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 12:36	1
Selenium	**0.019**		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 12:36	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 12:36	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 12:36	1
Potassium	**3.4**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 12:36	1
Magnesium	**77**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 12:36	1
Sodium	**16**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 12:36	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 16:56	1
Manganese	**0.0066**		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 16:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 14:52	1
Total Dissolved Solids	**890**		10	10	mg/L			02/12/21 12:15	1
Total Alkalinity as CaCO3 to pH 4.5	**71**		5.0	5.0	mg/L			02/13/21 13:25	1
Bicarbonate Alkalinity as CaCO3	**71**		5.0	5.0	mg/L			02/13/21 13:25	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 13:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.79**				SU			02/09/21 11:52	1

Client Sample ID: FB-1

Date Collected: 02/09/21 09:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/11/21 07:46	1
Fluoride	<0.026		0.10	0.026	mg/L			02/11/21 07:46	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 07:46	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 07:46	1
Sulfate	<0.76		1.0	0.76	mg/L			02/11/21 07:46	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/17/21 07:43	02/18/21 12:40	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 12:40	1
Barium	<0.0016		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 12:40	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 12:40	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 12:40	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 12:40	1
Calcium	<0.13		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 12:40	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 12:40	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 12:40	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 12:40	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 12:40	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 12:40	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 12:40	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 12:40	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 12:40	1
Potassium	<0.16		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 12:40	1
Magnesium	<0.083		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 12:40	1
Sodium	<0.35		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 12:40	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:00	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:00	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/25/21 08:39	02/26/21 11:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 14:54	1
Total Dissolved Solids	<10		10	10	mg/L			02/12/21 12:18	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			02/13/21 13:34	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 13:34	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 13:34	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-5

Date Collected: 02/09/21 11:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.1**		1.0	0.71	mg/L			02/11/21 08:59	1
Fluoride	**0.055**	**J**	0.10	0.026	mg/L			02/11/21 08:59	1
Nitrate as N	**0.41**		0.10	0.023	mg/L			02/11/21 08:59	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 08:59	1
Sulfate	<0.76		1.0	0.76	mg/L			02/11/21 08:59	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 12:43	1
Barium	**0.028**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 12:43	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 12:43	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 12:43	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 12:43	1
Calcium	**6.2**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 12:43	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 12:43	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 12:43	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 12:43	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 12:43	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 12:43	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 12:43	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 12:43	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 12:43	1
Potassium	**1.1**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 12:43	1
Magnesium	**2.5**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 12:43	1
Sodium	**8.1**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 12:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 14:56	1
Total Dissolved Solids	**73**		10	10	mg/L			02/12/21 12:18	1
Total Alkalinity as CaCO3 to pH 4.5	**41**		5.0	5.0	mg/L			02/13/21 14:01	1
Bicarbonate Alkalinity as CaCO3	**41**		5.0	5.0	mg/L			02/13/21 14:01	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 14:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.88**				SU			02/09/21 11:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-3

Date Collected: 02/09/21 13:55
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.0**		1.0	0.71	mg/L			02/11/21 09:16	1
Fluoride	**0.084**	**J**	0.10	0.026	mg/L			02/11/21 09:16	1
Nitrate as N	**0.076**	**J**	0.10	0.023	mg/L			02/11/21 09:16	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 09:16	1
Sulfate	<0.76		1.0	0.76	mg/L			02/11/21 09:16	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 12:47	1
Barium	**0.017**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 12:47	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 12:47	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 12:47	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 12:47	1
Calcium	**5.8**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 12:47	1
Chromium	**0.0028**		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 12:47	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 12:47	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 12:47	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 12:47	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 12:47	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 12:47	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 12:47	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 12:47	1
Potassium	**1.1**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 12:47	1
Magnesium	**3.3**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 12:47	1
Sodium	**7.2**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 12:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:01	1
Total Dissolved Solids	**62**		10	10	mg/L			02/12/21 12:18	1
Total Alkalinity as CaCO3 to pH 4.5	**44**		5.0	5.0	mg/L			02/13/21 14:10	1
Bicarbonate Alkalinity as CaCO3	**44**		5.0	5.0	mg/L			02/13/21 14:10	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 14:10	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.94**				SU			02/09/21 13:55	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-16

Date Collected: 02/09/21 15:35
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.7**		1.0	0.71	mg/L			02/11/21 09:32	1
Fluoride	**0.056**	**J**	0.10	0.026	mg/L			02/11/21 09:32	1
Nitrate as N	**0.71**	**F1**	0.10	0.023	mg/L			02/11/21 09:32	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 09:32	1
Sulfate	**190**	**F1**	1.0	0.76	mg/L			02/11/21 09:32	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 12:50	1
Barium	**0.044**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 12:50	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 12:50	1
Boron	**0.076**	**J**	0.080	0.039	mg/L		02/17/21 07:43	02/18/21 12:50	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 12:50	1
Calcium	**38**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 12:50	1
Chromium	**0.0018**	**J**	0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 12:50	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 12:50	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 12:50	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 12:50	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 12:50	1
Selenium	**0.0019**	**J**	0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 12:50	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 12:50	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 12:50	1
Potassium	**3.5**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 12:50	1
Magnesium	**26**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 12:50	1
Sodium	**15**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:03	1
Total Dissolved Solids	**310**		10	10	mg/L			02/12/21 12:18	1
Total Alkalinity as CaCO3 to pH 4.5	**39**		5.0	5.0	mg/L			02/13/21 14:19	1
Bicarbonate Alkalinity as CaCO3	**39**		5.0	5.0	mg/L			02/13/21 14:19	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 14:19	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.24**				SU			02/09/21 15:35	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-12

Date Collected: 02/09/21 10:10
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15**		1.0	0.71	mg/L			02/11/21 07:53	1
Fluoride	**0.070**	**J**	0.10	0.026	mg/L			02/11/21 07:53	1
Nitrate as N	**0.18**		0.10	0.023	mg/L			02/11/21 07:53	1
Nitrite as N	**0.14**		0.050	0.029	mg/L			02/11/21 07:53	1
Sulfate	**11**		1.0	0.76	mg/L			02/11/21 07:53	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 12:54	1
Barium	**0.076**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 12:54	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 12:54	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 12:54	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 12:54	1
Calcium	**14**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 12:54	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 12:54	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 12:54	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 12:54	1
Lithium	**0.0051**		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 12:54	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 12:54	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 12:54	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 12:54	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 12:54	1
Potassium	**2.4**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 12:54	1
Magnesium	**8.7**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 12:54	1
Sodium	**11**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 12:54	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:11	1
Manganese	**0.0019**	**J**	0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:05	1
Total Dissolved Solids	**140**		10	10	mg/L			02/12/21 12:15	1
Total Alkalinity as CaCO3 to pH 4.5	**77**		5.0	5.0	mg/L			02/13/21 16:13	1
Bicarbonate Alkalinity as CaCO3	**77**		5.0	5.0	mg/L			02/13/21 16:13	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 16:13	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.92**				SU			02/09/21 10:10	1

Client Sample ID: ARGWA-24

Date Collected: 02/09/21 12:25
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		1.0	0.71	mg/L			02/11/21 08:09	1
Fluoride	**0.057**	**J**	0.10	0.026	mg/L			02/11/21 08:09	1
Nitrate as N	**0.029**	**J**	0.10	0.023	mg/L			02/11/21 08:09	1
Nitrite as N	**0.12**		0.050	0.029	mg/L			02/11/21 08:09	1
Sulfate	**8.5**		1.0	0.76	mg/L			02/11/21 08:09	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/17/21 07:43	02/18/21 12:58	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 12:58	1
Barium	**0.036**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 12:58	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 12:58	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 12:58	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 12:58	1
Calcium	**9.7**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 12:58	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 12:58	1
Cobalt	**0.00088**	**J**	0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 12:58	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 12:58	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 12:58	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 12:58	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 12:58	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 12:58	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 12:58	1
Potassium	**0.88**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 12:58	1
Magnesium	**5.7**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 12:58	1
Sodium	**13**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 12:58	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.079**		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:15	1
Manganese	**0.046**		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:15	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/11/21 12:26	02/18/21 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:07	1
Total Dissolved Solids	**110**		10	10	mg/L			02/12/21 12:15	1
Total Alkalinity as CaCO3 to pH 4.5	**60**		5.0	5.0	mg/L			02/13/21 16:22	1
Bicarbonate Alkalinity as CaCO3	**60**		5.0	5.0	mg/L			02/13/21 16:22	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 16:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.69**				SU			02/09/21 12:25	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: DUP-1
Date Collected: 02/09/21 00:00
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-3
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		1.0	0.71	mg/L			02/11/21 08:40	1
Fluoride	**0.054**	**J**	0.10	0.026	mg/L			02/11/21 08:40	1
Nitrate as N	**0.028**	**J H**	0.10	0.023	mg/L			02/11/21 08:40	1
Nitrite as N	**0.12**	**H**	0.050	0.029	mg/L			02/11/21 08:40	1
Sulfate	**8.5**		1.0	0.76	mg/L			02/11/21 08:40	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/17/21 07:43	02/18/21 13:09	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 13:09	1
Barium	**0.035**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 13:09	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 13:09	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 13:09	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 13:09	1
Calcium	**10**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 13:09	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 13:09	1
Cobalt	**0.00092**	**J**	0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 13:09	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 13:09	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 13:09	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 13:09	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 13:09	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 13:09	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 13:09	1
Potassium	**0.89**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 13:09	1
Magnesium	**5.6**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 13:09	1
Sodium	**13**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 13:09	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.078**		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:18	1
Manganese	**0.044**		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:18	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/11/21 12:26	02/18/21 12:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:09	1
Total Dissolved Solids	**110**		10	10	mg/L			02/12/21 12:15	1
Total Alkalinity as CaCO3 to pH 4.5	**56**		5.0	5.0	mg/L			02/13/21 16:49	1
Bicarbonate Alkalinity as CaCO3	**56**		5.0	5.0	mg/L			02/13/21 16:49	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 16:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.69**				SU			02/09/21 00:00	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARAMW-6

Date Collected: 02/09/21 15:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-4

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		1.0	0.71	mg/L			02/11/21 08:24	1
Fluoride	0.083	J	0.10	0.026	mg/L			02/11/21 08:24	1
Nitrate as N	0.076	J	0.10	0.023	mg/L			02/11/21 08:24	1
Nitrite as N	0.13		0.050	0.029	mg/L			02/11/21 08:24	1
Sulfate	59		1.0	0.76	mg/L			02/11/21 08:24	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 13:12	1
Barium	0.041		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 13:12	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 13:12	1
Boron	0.85		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 13:12	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 13:12	1
Calcium	33		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 13:12	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 13:12	1
Cobalt	0.00047	J	0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 13:12	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 13:12	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 13:12	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 13:12	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 13:12	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 13:12	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 13:12	1
Potassium	1.3		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 13:12	1
Magnesium	16		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 13:12	1
Sodium	11		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 13:12	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.082		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:22	1
Manganese	0.018		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:11	1
Total Dissolved Solids	220		10	10	mg/L			02/12/21 12:15	1
Total Alkalinity as CaCO3 to pH 4.5	120		5.0	5.0	mg/L			02/13/21 16:58	1
Bicarbonate Alkalinity as CaCO3	120		5.0	5.0	mg/L			02/13/21 16:58	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 16:58	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.34				SU			02/09/21 15:30	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-10

Date Collected: 02/09/21 16:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.7		1.0	0.71	mg/L			02/11/21 10:10	1
Fluoride	0.051	J	0.10	0.026	mg/L			02/11/21 10:10	1
Nitrate as N	0.057	J	0.10	0.023	mg/L			02/11/21 10:10	1
Nitrite as N	0.13		0.050	0.029	mg/L			02/11/21 10:10	1
Sulfate	1.3		1.0	0.76	mg/L			02/11/21 10:10	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 13:16	1
Barium	0.031		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 13:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 13:16	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 13:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 13:16	1
Calcium	7.7		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 13:16	1
Chromium	0.0046		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 13:16	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 13:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 13:16	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 13:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 13:16	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 13:16	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 13:16	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 13:16	1
Potassium	0.76		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 13:16	1
Magnesium	3.6		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 13:16	1
Sodium	9.3		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 13:16	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:25	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:13	1
Total Dissolved Solids	81		10	10	mg/L			02/12/21 12:15	1
Total Alkalinity as CaCO3 to pH 4.5	51		5.0	5.0	mg/L			02/13/21 17:07	1
Bicarbonate Alkalinity as CaCO3	51		5.0	5.0	mg/L			02/13/21 17:07	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 17:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.94				SU			02/09/21 16:30	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-15

Date Collected: 02/09/21 12:15
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.71	mg/L			02/11/21 09:22	1
Fluoride	0.094	J	0.10	0.026	mg/L			02/11/21 09:22	1
Nitrate as N	0.23		0.10	0.023	mg/L			02/11/21 09:22	1
Nitrite as N	0.14		0.050	0.029	mg/L			02/11/21 09:22	1
Sulfate	7.1		1.0	0.76	mg/L			02/11/21 09:22	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 13:20	1
Barium	0.029		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 13:20	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 13:20	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 13:20	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 13:20	1
Calcium	23		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 13:20	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 13:20	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 13:20	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 13:20	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 13:20	1
Molybdenum	0.0012	J	0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 13:20	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 13:20	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 13:20	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 13:20	1
Potassium	7.2		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 13:20	1
Magnesium	7.7		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 13:20	1
Sodium	9.0		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 13:20	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.11		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:29	1
Manganese	0.0035	J	0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:15	1
Total Dissolved Solids	140		10	10	mg/L			02/12/21 12:15	1
Total Alkalinity as CaCO3 to pH 4.5	110		5.0	5.0	mg/L			02/13/21 17:16	1
Bicarbonate Alkalinity as CaCO3	110		5.0	5.0	mg/L			02/13/21 17:16	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 17:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.43				SU			02/09/21 12:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-17

Date Collected: 02/09/21 14:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.1**		1.0	0.71	mg/L			02/11/21 10:57	1
Fluoride	<0.026		0.10	0.026	mg/L			02/11/21 10:57	1
Nitrate as N	**0.23**		0.10	0.023	mg/L			02/11/21 10:57	1
Nitrite as N	**0.10**		0.050	0.029	mg/L			02/11/21 10:57	1
Sulfate	**73**		1.0	0.76	mg/L			02/11/21 10:57	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 13:23	1
Barium	**0.051**		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 13:23	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 13:23	1
Boron	**0.042**	**J**	0.080	0.039	mg/L		02/17/21 07:43	02/18/21 13:23	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 13:23	1
Calcium	**12**		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 13:23	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 13:23	1
Cobalt	**0.025**		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 13:23	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 13:23	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 13:23	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 13:23	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 13:23	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 13:23	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 13:23	1
Potassium	**1.1**		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 13:23	1
Magnesium	**9.6**		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 13:23	1
Sodium	**7.5**		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 13:23	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.075**		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 17:33	1
Manganese	**0.66**		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 17:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:17	1
Total Dissolved Solids	<200		200	200	mg/L			02/12/21 12:15	1
Total Dissolved Solids	**120**	**H**	10	10	mg/L			02/25/21 14:46	1
Total Alkalinity as CaCO3 to pH 4.5	**30**		5.0	5.0	mg/L			02/19/21 21:47	1
Bicarbonate Alkalinity as CaCO3	**30**		5.0	5.0	mg/L			02/19/21 21:47	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/19/21 21:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.17**				SU			02/09/21 14:30	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-8

Date Collected: 02/10/21 10:15
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117033-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.4		1.0	0.71	mg/L			02/11/21 16:11	1
Fluoride	0.17		0.10	0.026	mg/L			02/11/21 16:11	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 16:11	1
Nitrite as N	0.13		0.050	0.029	mg/L			02/11/21 16:11	1
Sulfate	60		1.0	0.76	mg/L			02/11/21 16:11	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/18/21 05:36	02/19/21 21:29	1
Barium	0.049		0.010	0.0016	mg/L		02/18/21 05:36	02/19/21 21:29	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/18/21 05:36	02/19/21 21:29	1
Boron	1.3		0.080	0.039	mg/L		02/18/21 05:36	02/24/21 12:59	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/18/21 05:36	02/19/21 21:29	1
Calcium	48		0.50	0.13	mg/L		02/18/21 05:36	02/19/21 21:29	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/18/21 05:36	02/19/21 21:29	1
Cobalt	0.00015	J	0.0025	0.00013	mg/L		02/18/21 05:36	02/19/21 21:29	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/18/21 05:36	02/19/21 21:29	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/18/21 05:36	02/19/21 21:29	1
Molybdenum	0.041		0.015	0.00061	mg/L		02/18/21 05:36	02/19/21 21:29	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/18/21 05:36	02/19/21 21:29	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/18/21 05:36	02/19/21 21:29	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/18/21 05:36	02/19/21 21:29	1
Potassium	1.7		0.50	0.16	mg/L		02/18/21 05:36	02/19/21 21:29	1
Magnesium	22		0.50	0.083	mg/L		02/18/21 05:36	02/19/21 21:29	1
Sodium	14		0.50	0.35	mg/L		02/18/21 05:36	02/19/21 21:29	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/18/21 05:36	02/19/21 21:32	1
Manganese	0.38		0.0050	0.00087	mg/L		02/18/21 05:36	02/19/21 21:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:39	1
Total Dissolved Solids	270		10	10	mg/L			02/17/21 10:34	1
Total Alkalinity as CaCO3 to pH 4.5	170		5.0	5.0	mg/L			02/16/21 13:30	1
Bicarbonate Alkalinity as CaCO3	170		5.0	5.0	mg/L			02/16/21 13:30	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 13:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.45				SU			02/10/21 10:15	1

Client Sample ID: ARAMW-3

Date Collected: 02/10/21 09:25
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		1.0	0.71	mg/L			02/11/21 14:18	1
Fluoride	0.099	J	0.10	0.026	mg/L			02/11/21 14:18	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 14:18	1
Nitrite as N	0.13		0.050	0.029	mg/L			02/11/21 14:18	1
Sulfate	60		1.0	0.76	mg/L			02/11/21 14:18	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 12:02	02/18/21 15:37	1
Barium	0.066		0.010	0.0016	mg/L		02/17/21 12:02	02/18/21 15:37	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 12:02	02/18/21 15:37	1
Boron	0.99		0.080	0.039	mg/L		02/17/21 12:02	02/18/21 15:37	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 12:02	02/18/21 15:37	1
Calcium	30		0.50	0.13	mg/L		02/17/21 12:02	02/18/21 15:37	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 12:02	02/18/21 15:37	1
Cobalt	0.00055	J	0.0025	0.00013	mg/L		02/17/21 12:02	02/18/21 15:37	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 12:02	02/18/21 15:37	1
Lithium	0.0046	J	0.0050	0.0034	mg/L		02/17/21 12:02	02/18/21 15:37	1
Molybdenum	0.00065	J	0.015	0.00061	mg/L		02/17/21 12:02	02/18/21 15:37	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 12:02	02/18/21 15:37	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 15:37	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 12:02	02/18/21 15:37	1
Potassium	3.2		0.50	0.16	mg/L		02/17/21 12:02	02/18/21 15:37	1
Magnesium	15		0.50	0.083	mg/L		02/17/21 12:02	02/18/21 15:37	1
Sodium	13		0.50	0.35	mg/L		02/17/21 12:02	02/18/21 15:37	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.5		0.050	0.020	mg/L		02/17/21 12:02	02/18/21 14:46	1
Manganese	0.21		0.0050	0.00087	mg/L		02/17/21 12:02	02/18/21 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:48	1
Total Dissolved Solids	230		10	10	mg/L			02/17/21 10:34	1
Total Alkalinity as CaCO3 to pH 4.5	100		5.0	5.0	mg/L			02/16/21 13:48	1
Bicarbonate Alkalinity as CaCO3	100		5.0	5.0	mg/L			02/16/21 13:48	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 13:48	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.15				SU			02/10/21 09:25	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARAMW-4

Date Collected: 02/10/21 11:45
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		1.0	0.71	mg/L			02/11/21 15:39	1
Fluoride	0.028	J	0.10	0.026	mg/L			02/11/21 15:39	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 15:39	1
Nitrite as N	0.029	J	0.050	0.029	mg/L			02/11/21 15:39	1
Sulfate	1000		10	7.6	mg/L			02/11/21 15:55	10

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 12:02	02/18/21 15:51	1
Barium	0.042		0.010	0.0016	mg/L		02/17/21 12:02	02/18/21 15:51	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 12:02	02/18/21 15:51	1
Boron	0.40		0.080	0.039	mg/L		02/17/21 12:02	02/18/21 15:51	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 12:02	02/18/21 15:51	1
Calcium	220		0.50	0.13	mg/L		02/17/21 12:02	02/18/21 15:51	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 12:02	02/18/21 15:51	1
Cobalt	0.0053		0.0025	0.00013	mg/L		02/17/21 12:02	02/18/21 15:51	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 12:02	02/18/21 15:51	1
Lithium	0.014		0.0050	0.0034	mg/L		02/17/21 12:02	02/18/21 15:51	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 12:02	02/18/21 15:51	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 12:02	02/18/21 15:51	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 15:51	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 12:02	02/18/21 15:51	1
Potassium	11		0.50	0.16	mg/L		02/17/21 12:02	02/18/21 15:51	1
Magnesium	110		0.50	0.083	mg/L		02/17/21 12:02	02/18/21 15:51	1
Sodium	28		0.50	0.35	mg/L		02/17/21 12:02	02/18/21 15:51	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4.3		0.050	0.020	mg/L		02/17/21 12:02	02/18/21 14:50	1
Manganese	1.1		0.0050	0.00087	mg/L		02/17/21 12:02	02/18/21 14:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:50	1
Total Dissolved Solids	1500		10	10	mg/L			02/17/21 10:34	1
Total Alkalinity as CaCO3 to pH 4.5	57		5.0	5.0	mg/L			02/16/21 13:57	1
Bicarbonate Alkalinity as CaCO3	57		5.0	5.0	mg/L			02/16/21 13:57	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 13:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.64				SU			02/10/21 11:45	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-7

Date Collected: 02/10/21 14:30
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		1.0	0.71	mg/L			02/11/21 14:34	1
Fluoride	0.033	J	0.10	0.026	mg/L			02/11/21 14:34	1
Nitrate as N	0.37		0.10	0.023	mg/L			02/11/21 14:34	1
Nitrite as N	0.092		0.050	0.029	mg/L			02/11/21 14:34	1
Sulfate	43		1.0	0.76	mg/L			02/11/21 14:34	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 12:02	02/18/21 15:55	1
Barium	0.041		0.010	0.0016	mg/L		02/17/21 12:02	02/18/21 15:55	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 12:02	02/18/21 15:55	1
Boron	0.10		0.080	0.039	mg/L		02/17/21 12:02	02/18/21 15:55	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 12:02	02/18/21 15:55	1
Calcium	9.9		0.50	0.13	mg/L		02/17/21 12:02	02/18/21 15:55	1
Chromium	0.0030		0.0020	0.0015	mg/L		02/17/21 12:02	02/18/21 15:55	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 12:02	02/18/21 15:55	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 12:02	02/18/21 15:55	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 12:02	02/18/21 15:55	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 12:02	02/18/21 15:55	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 12:02	02/18/21 15:55	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 15:55	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 12:02	02/18/21 15:55	1
Potassium	0.96		0.50	0.16	mg/L		02/17/21 12:02	02/18/21 15:55	1
Magnesium	8.2		0.50	0.083	mg/L		02/17/21 12:02	02/18/21 15:55	1
Sodium	6.2		0.50	0.35	mg/L		02/17/21 12:02	02/18/21 15:55	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/17/21 12:02	02/18/21 15:11	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/17/21 12:02	02/18/21 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:52	1
Total Dissolved Solids	110		10	10	mg/L			02/17/21 13:17	1
Total Alkalinity as CaCO3 to pH 4.5	26		5.0	5.0	mg/L			02/16/21 14:05	1
Bicarbonate Alkalinity as CaCO3	26		5.0	5.0	mg/L			02/16/21 14:05	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 14:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.77				SU			02/10/21 14:33	1

Client Sample ID: EB-1

Date Collected: 02/10/21 09:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/11/21 18:38	1
Fluoride	<0.026		0.10	0.026	mg/L			02/11/21 18:38	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 18:38	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 18:38	1
Sulfate	<0.76		1.0	0.76	mg/L			02/11/21 18:38	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/17/21 12:02	02/18/21 15:59	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 12:02	02/18/21 15:59	1
Barium	<0.0016		0.010	0.0016	mg/L		02/17/21 12:02	02/18/21 15:59	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 12:02	02/18/21 15:59	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 12:02	02/18/21 15:59	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 12:02	02/18/21 15:59	1
Calcium	<0.13		0.50	0.13	mg/L		02/17/21 12:02	02/18/21 15:59	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 12:02	02/18/21 15:59	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 12:02	02/18/21 15:59	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 12:02	02/18/21 15:59	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 12:02	02/18/21 15:59	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 12:02	02/18/21 15:59	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 12:02	02/18/21 15:59	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 15:59	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 12:02	02/18/21 15:59	1
Potassium	<0.16		0.50	0.16	mg/L		02/17/21 12:02	02/18/21 15:59	1
Magnesium	<0.083		0.50	0.083	mg/L		02/17/21 12:02	02/18/21 15:59	1
Sodium	<0.35		0.50	0.35	mg/L		02/17/21 12:02	02/18/21 15:59	1

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/17/21 12:02	02/18/21 15:15	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/17/21 12:02	02/18/21 15:15	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/12/21 13:22	02/23/21 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:54	1
Total Dissolved Solids	<10		10	10	mg/L			02/17/21 13:17	1
Total Alkalinity as CaCO3 to pH 4.5	<5.0	*+	5.0	5.0	mg/L			02/16/21 14:33	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 14:33	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 14:33	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-18

Date Collected: 02/10/21 12:00
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.8**		1.0	0.71	mg/L			02/11/21 18:06	1
Fluoride	**0.12**		0.10	0.026	mg/L			02/11/21 18:06	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 18:06	1
Nitrite as N	**0.099**		0.050	0.029	mg/L			02/11/21 18:06	1
Sulfate	**220**		5.0	3.8	mg/L			02/11/21 18:22	5

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 12:02	02/18/21 16:02	1
Barium	**0.038**		0.010	0.0016	mg/L		02/17/21 12:02	02/18/21 16:02	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 12:02	02/18/21 16:02	1
Boron	**2.4**		0.080	0.039	mg/L		02/17/21 12:02	02/18/21 16:02	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 12:02	02/18/21 16:02	1
Calcium	**52**		0.50	0.13	mg/L		02/17/21 12:02	02/18/21 16:02	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 12:02	02/18/21 16:02	1
Cobalt	**0.0011**	**J**	0.0025	0.00013	mg/L		02/17/21 12:02	02/18/21 16:02	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 12:02	02/18/21 16:02	1
Lithium	**0.0041**	**J**	0.0050	0.0034	mg/L		02/17/21 12:02	02/18/21 16:02	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 12:02	02/18/21 16:02	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 12:02	02/18/21 16:02	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 16:02	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 12:02	02/18/21 16:02	1
Potassium	**2.3**		0.50	0.16	mg/L		02/17/21 12:02	02/18/21 16:02	1
Magnesium	**42**		0.50	0.083	mg/L		02/17/21 12:02	02/18/21 16:02	1
Sodium	**13**		0.50	0.35	mg/L		02/17/21 12:02	02/18/21 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 16:01	1
Total Dissolved Solids	**460**		10	10	mg/L			02/17/21 10:34	1
Total Alkalinity as CaCO3 to pH 4.5	**120**		5.0	5.0	mg/L			02/16/21 14:51	1
Bicarbonate Alkalinity as CaCO3	**120**		5.0	5.0	mg/L			02/16/21 14:51	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 14:51	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.99**				SU			02/10/21 12:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-9

Date Collected: 02/10/21 15:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-3

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.9**		1.0	0.71	mg/L			02/11/21 14:50	1
Fluoride	**0.051**	**J**	0.10	0.026	mg/L			02/11/21 14:50	1
Nitrate as N	**0.78**		0.10	0.023	mg/L			02/11/21 14:50	1
Nitrite as N	**0.091**		0.050	0.029	mg/L			02/11/21 14:50	1
Sulfate	**1.7**		1.0	0.76	mg/L			02/11/21 14:50	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 12:02	02/18/21 16:06	1
Barium	**0.038**		0.010	0.0016	mg/L		02/17/21 12:02	02/18/21 16:06	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 12:02	02/18/21 16:06	1
Boron	**0.060**	**J**	0.080	0.039	mg/L		02/17/21 12:02	02/18/21 16:06	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 12:02	02/18/21 16:06	1
Calcium	**4.8**		0.50	0.13	mg/L		02/17/21 12:02	02/18/21 16:06	1
Chromium	**0.0070**		0.0020	0.0015	mg/L		02/17/21 12:02	02/18/21 16:06	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 12:02	02/18/21 16:06	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 12:02	02/18/21 16:06	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 12:02	02/18/21 16:06	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 12:02	02/18/21 16:06	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 12:02	02/18/21 16:06	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 16:06	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 12:02	02/18/21 16:06	1
Potassium	**1.8**		0.50	0.16	mg/L		02/17/21 12:02	02/18/21 16:06	1
Magnesium	**2.1**		0.50	0.083	mg/L		02/17/21 12:02	02/18/21 16:06	1
Sodium	**6.5**		0.50	0.35	mg/L		02/17/21 12:02	02/18/21 16:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 16:04	1
Total Dissolved Solids	**71**		10	10	mg/L			02/17/21 10:34	1
Total Alkalinity as CaCO3 to pH 4.5	**21**		5.0	5.0	mg/L			02/16/21 15:00	1
Bicarbonate Alkalinity as CaCO3	**21**		5.0	5.0	mg/L			02/16/21 15:00	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 15:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.91**				SU			02/10/21 15:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-16

Date Collected: 02/11/21 14:00
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-1

Matrix: Water

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/18/21 11:38	02/19/21 23:10	1
Manganese	**0.28**		0.0050	0.00087	mg/L		02/18/21 11:38	02/19/21 23:10	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.23**				SU			02/11/21 14:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-18

Date Collected: 02/11/21 12:35
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-2

Matrix: Water

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.3		0.050	0.020	mg/L		02/18/21 11:38	02/19/21 23:13	1
Manganese	0.92		0.0050	0.00087	mg/L		02/18/21 11:38	02/19/21 23:13	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.03				SU			02/11/21 12:35	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWC-9

Date Collected: 02/11/21 13:50
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-3

Matrix: Water

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/18/21 11:38	02/19/21 23:17	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/18/21 11:38	02/19/21 23:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.95				SU			02/11/21 13:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-3

Date Collected: 02/11/21 12:50
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-4

Matrix: Water

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/18/21 11:38	02/19/21 23:21	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/18/21 11:38	02/19/21 23:21	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.94				SU			02/11/21 12:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-5

Date Collected: 02/11/21 13:15
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-5

Matrix: Water

Method: EPA 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/18/21 11:38	02/19/21 23:24	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/18/21 11:38	02/19/21 23:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.87				SU			02/11/21 13:15	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-1

Client Sample ID: ARGWA-14

Date Collected: 02/11/21 14:58
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-6

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.6**		1.0	0.71	mg/L			02/12/21 16:48	1
Fluoride	**0.25**		0.10	0.026	mg/L			02/12/21 16:48	1
Nitrate as N	**0.18**		0.10	0.023	mg/L			02/12/21 16:48	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/12/21 16:48	1
Sulfate	**10**		1.0	0.76	mg/L			02/12/21 16:48	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/18/21 11:38	02/19/21 23:28	1
Barium	**0.066**		0.010	0.0016	mg/L		02/18/21 11:38	02/19/21 23:28	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/18/21 11:38	02/19/21 23:28	1
Boron	**0.062**	**J**	0.080	0.039	mg/L		02/18/21 11:38	02/25/21 14:59	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/18/21 11:38	02/19/21 23:28	1
Calcium	**40**		0.50	0.13	mg/L		02/18/21 11:38	02/19/21 23:28	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/18/21 11:38	02/19/21 23:28	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/18/21 11:38	02/19/21 23:28	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/18/21 11:38	02/19/21 23:28	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/18/21 11:38	02/19/21 23:28	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/18/21 11:38	02/19/21 23:28	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/18/21 11:38	02/19/21 23:28	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/18/21 11:38	02/19/21 23:28	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/18/21 11:38	02/19/21 23:28	1
Potassium	**2.7**		0.50	0.16	mg/L		02/18/21 11:38	02/19/21 23:28	1
Magnesium	**7.7**		0.50	0.083	mg/L		02/18/21 11:38	02/19/21 23:28	1
Sodium	**58**		0.50	0.35	mg/L		02/18/21 11:38	02/19/21 23:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/18/21 12:27	02/18/21 16:30	1
Total Dissolved Solids	**290**		10	10	mg/L			02/18/21 15:55	1
Total Alkalinity as CaCO3 to pH 4.5	**260**		5.0	5.0	mg/L			02/16/21 18:53	1
Bicarbonate Alkalinity as CaCO3	**260**		5.0	5.0	mg/L			02/16/21 18:53	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 18:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.02**				SU			02/11/21 14:58	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 180-346228/6
Matrix: Water
Analysis Batch: 346228

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/11/21 07:33	1
Fluoride	<0.026		0.10	0.026	mg/L			02/11/21 07:33	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 07:33	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 07:33	1
Sulfate	<0.76		1.0	0.76	mg/L			02/11/21 07:33	1

Lab Sample ID: LCS 180-346228/5
Matrix: Water
Analysis Batch: 346228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	54.1		mg/L		108	90 - 110
Fluoride	2.50	2.70		mg/L		108	90 - 110
Nitrate as N	2.50	2.60		mg/L		104	90 - 110
Nitrite as N	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	52.7		mg/L		105	90 - 110

Lab Sample ID: 180-116988-2 MS
Matrix: Water
Analysis Batch: 346228

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.7		50.0	56.1		mg/L		107	90 - 110
Fluoride	0.094	J	2.50	2.67		mg/L		103	90 - 110
Nitrate as N	0.23		2.50	2.82		mg/L		103	90 - 110
Nitrite as N	0.14		2.50	2.53		mg/L		96	90 - 110
Sulfate	7.1		50.0	56.9		mg/L		100	90 - 110

Lab Sample ID: 180-116988-2 MSD
Matrix: Water
Analysis Batch: 346228

Client Sample ID: ARGWC-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.7		50.0	55.1		mg/L		105	90 - 110	2	20
Fluoride	0.094	J	2.50	2.66		mg/L		103	90 - 110	0	20
Nitrate as N	0.23		2.50	2.75		mg/L		101	90 - 110	2	20
Nitrite as N	0.14		2.50	2.49		mg/L		94	90 - 110	2	20
Sulfate	7.1		50.0	56.7		mg/L		99	90 - 110	0	20

Lab Sample ID: 180-117035-3 MS
Matrix: Water
Analysis Batch: 346228

Client Sample ID: ARGWC-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.9		50.0	60.7		mg/L		109	90 - 110
Fluoride	0.051	J	2.50	2.74		mg/L		108	90 - 110
Nitrate as N	0.78		2.50	3.42		mg/L		106	90 - 110
Nitrite as N	0.091		2.50	2.59		mg/L		100	90 - 110
Sulfate	1.7		50.0	53.8		mg/L		104	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy (Continued)

Lab Sample ID: 180-117035-3 MSD
Matrix: Water
Analysis Batch: 346228

Client Sample ID: ARGWC-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.9		50.0	59.6		mg/L		107	90 - 110	2	20
Fluoride	0.051	J	2.50	2.70		mg/L		106	90 - 110	2	20
Nitrate as N	0.78		2.50	3.37		mg/L		104	90 - 110	2	20
Nitrite as N	0.091		2.50	2.56		mg/L		99	90 - 110	1	20
Sulfate	1.7		50.0	53.0		mg/L		103	90 - 110	2	20

Lab Sample ID: MB 180-346231/6
Matrix: Water
Analysis Batch: 346231

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/11/21 07:29	1
Fluoride	<0.026		0.10	0.026	mg/L			02/11/21 07:29	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/11/21 07:29	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/11/21 07:29	1
Sulfate	<0.76		1.0	0.76	mg/L			02/11/21 07:29	1

Lab Sample ID: LCS 180-346231/5
Matrix: Water
Analysis Batch: 346231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	47.5		mg/L		95	90 - 110
Fluoride	2.50	2.48		mg/L		99	90 - 110
Nitrate as N	2.50	2.32		mg/L		93	90 - 110
Nitrite as N	2.50	2.39		mg/L		96	90 - 110
Sulfate	50.0	48.4		mg/L		97	90 - 110

Lab Sample ID: 180-116983-3 MS
Matrix: Water
Analysis Batch: 346231

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.7		50.0	52.1		mg/L		93	90 - 110
Fluoride	0.056	J	2.50	2.32		mg/L		91	90 - 110
Nitrate as N	0.71	F1	2.50	2.83	F1	mg/L		85	90 - 110
Nitrite as N	<0.029		2.50	2.34		mg/L		94	90 - 110
Sulfate	190	F1	50.0	214	E F1	mg/L		39	90 - 110

Lab Sample ID: 180-116983-3 MSD
Matrix: Water
Analysis Batch: 346231

Client Sample ID: ARGWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.7		50.0	54.4		mg/L		97	90 - 110	4	20
Fluoride	0.056	J	2.50	2.42		mg/L		95	90 - 110	4	20
Nitrate as N	0.71	F1	2.50	2.84	F1	mg/L		85	90 - 110	0	20
Nitrite as N	<0.029		2.50	2.37		mg/L		95	90 - 110	1	20
Sulfate	190	F1	50.0	225	E F1	mg/L		61	90 - 110	5	20

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy (Continued)

Lab Sample ID: MB 180-346366/6
Matrix: Water
Analysis Batch: 346366

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/12/21 07:40	1
Fluoride	<0.026		0.10	0.026	mg/L			02/12/21 07:40	1
Nitrate as N	<0.023		0.10	0.023	mg/L			02/12/21 07:40	1
Nitrite as N	<0.029		0.050	0.029	mg/L			02/12/21 07:40	1
Sulfate	<0.76		1.0	0.76	mg/L			02/12/21 07:40	1

Lab Sample ID: LCS 180-346366/5
Matrix: Water
Analysis Batch: 346366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.1		mg/L		98	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Nitrate as N	2.50	2.40		mg/L		96	90 - 110
Nitrite as N	2.50	2.46		mg/L		98	90 - 110
Sulfate	50.0	50.7		mg/L		101	90 - 110

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-346793/1-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346793

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/17/21 07:43	02/18/21 11:45	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 07:43	02/18/21 11:45	1
Barium	<0.0016		0.010	0.0016	mg/L		02/17/21 07:43	02/18/21 11:45	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/17/21 07:43	02/18/21 11:45	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 07:43	02/18/21 11:45	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/17/21 07:43	02/18/21 11:45	1
Calcium	<0.13		0.50	0.13	mg/L		02/17/21 07:43	02/18/21 11:45	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 07:43	02/18/21 11:45	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/17/21 07:43	02/18/21 11:45	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 07:43	02/18/21 11:45	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 07:43	02/18/21 11:45	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/17/21 07:43	02/18/21 11:45	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 07:43	02/18/21 11:45	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 07:43	02/18/21 11:45	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 07:43	02/18/21 11:45	1
Potassium	<0.16		0.50	0.16	mg/L		02/17/21 07:43	02/18/21 11:45	1
Magnesium	<0.083		0.50	0.083	mg/L		02/17/21 07:43	02/18/21 11:45	1
Sodium	<0.35		0.50	0.35	mg/L		02/17/21 07:43	02/18/21 11:45	1

Lab Sample ID: LCS 180-346793/2-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.232		mg/L		93	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-346793/2-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.01		mg/L		101	80 - 120
Barium	1.00	0.986		mg/L		99	80 - 120
Beryllium	0.500	0.501		mg/L		100	80 - 120
Boron	1.25	1.16		mg/L		93	80 - 120
Cadmium	0.500	0.503		mg/L		101	80 - 120
Calcium	25.0	26.2		mg/L		105	80 - 120
Chromium	0.500	0.493		mg/L		99	80 - 120
Cobalt	0.500	0.507		mg/L		101	80 - 120
Lead	0.500	0.502		mg/L		100	80 - 120
Lithium	0.500	0.488		mg/L		98	80 - 120
Molybdenum	0.500	0.510		mg/L		102	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Silver	0.250	0.244		mg/L		98	80 - 120
Thallium	1.00	1.06		mg/L		106	80 - 120
Potassium	25.0	24.4		mg/L		98	80 - 120
Magnesium	25.0	24.3		mg/L		97	80 - 120
Sodium	25.0	25.5		mg/L		102	80 - 120

Lab Sample ID: MB 180-346794/1-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/17/21 07:45	02/18/21 16:20	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/17/21 07:45	02/18/21 16:20	1

Lab Sample ID: LCS 180-346794/2-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	5.00	5.02		mg/L		100	80 - 120
Manganese	0.500	0.489		mg/L		98	80 - 120

Lab Sample ID: MB 180-346842/1-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346842

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		02/17/21 12:02	02/18/21 14:03	1
Iron	<0.020		0.050	0.020	mg/L		02/17/21 12:02	02/18/21 14:03	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/17/21 12:02	02/18/21 14:03	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/17/21 12:02	02/18/21 14:03	1
Barium	<0.0016		0.010	0.0016	mg/L		02/17/21 12:02	02/18/21 14:03	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 14:03	1
Boron	<0.039		0.080	0.039	mg/L		02/17/21 12:02	02/18/21 14:03	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/17/21 12:02	02/18/21 14:03	1
Calcium	<0.13		0.50	0.13	mg/L		02/17/21 12:02	02/18/21 14:03	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/17/21 12:02	02/18/21 14:03	1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-346842/1-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346842

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/17/21 12:02	02/18/21 14:03	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/17/21 12:02	02/18/21 14:03	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/17/21 12:02	02/18/21 14:03	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/17/21 12:02	02/18/21 14:03	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/17/21 12:02	02/18/21 14:03	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/17/21 12:02	02/18/21 14:03	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/17/21 12:02	02/18/21 14:03	1
Potassium	<0.16		0.50	0.16	mg/L		02/17/21 12:02	02/18/21 14:03	1
Magnesium	<0.083		0.50	0.083	mg/L		02/17/21 12:02	02/18/21 14:03	1
Sodium	<0.35		0.50	0.35	mg/L		02/17/21 12:02	02/18/21 14:03	1

Lab Sample ID: LCS 180-346842/2-A
Matrix: Water
Analysis Batch: 347047

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346842

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.238		mg/L		95	80 - 120
Iron	5.00	5.08		mg/L		102	80 - 120
Arsenic	1.00	0.999		mg/L		100	80 - 120
Manganese	0.500	0.495		mg/L		99	80 - 120
Barium	1.00	0.991		mg/L		99	80 - 120
Beryllium	0.500	0.518		mg/L		104	80 - 120
Boron	1.25	1.21		mg/L		97	80 - 120
Cadmium	0.500	0.504		mg/L		101	80 - 120
Calcium	25.0	26.9		mg/L		108	80 - 120
Chromium	0.500	0.496		mg/L		99	80 - 120
Cobalt	0.500	0.501		mg/L		100	80 - 120
Lead	0.500	0.501		mg/L		100	80 - 120
Lithium	0.500	0.490		mg/L		98	80 - 120
Molybdenum	0.500	0.509		mg/L		102	80 - 120
Selenium	1.00	1.02		mg/L		102	80 - 120
Silver	0.250	0.250		mg/L		100	80 - 120
Thallium	1.00	1.05		mg/L		105	80 - 120
Potassium	25.0	25.1		mg/L		101	80 - 120
Magnesium	25.0	25.4		mg/L		102	80 - 120
Sodium	25.0	26.1		mg/L		104	80 - 120

Lab Sample ID: MB 180-346914/1-A
Matrix: Water
Analysis Batch: 347383

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346914

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/18/21 05:36	02/19/21 18:16	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/18/21 05:36	02/19/21 18:16	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/18/21 05:36	02/19/21 18:16	1
Barium	<0.0016		0.010	0.0016	mg/L		02/18/21 05:36	02/19/21 18:16	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		02/18/21 05:36	02/19/21 18:16	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		02/18/21 05:36	02/19/21 18:16	1
Calcium	<0.13		0.50	0.13	mg/L		02/18/21 05:36	02/19/21 18:16	1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-346914/1-A
Matrix: Water
Analysis Batch: 347383

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346914

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<0.0015		0.0020	0.0015	mg/L		02/18/21 05:36	02/19/21 18:16	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		02/18/21 05:36	02/19/21 18:16	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/18/21 05:36	02/19/21 18:16	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/18/21 05:36	02/19/21 18:16	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		02/18/21 05:36	02/19/21 18:16	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/18/21 05:36	02/19/21 18:16	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/18/21 05:36	02/19/21 18:16	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/18/21 05:36	02/19/21 18:16	1
Potassium	<0.16		0.50	0.16	mg/L		02/18/21 05:36	02/19/21 18:16	1
Magnesium	<0.083		0.50	0.083	mg/L		02/18/21 05:36	02/19/21 18:16	1
Sodium	<0.35		0.50	0.35	mg/L		02/18/21 05:36	02/19/21 18:16	1

Lab Sample ID: MB 180-346914/1-A
Matrix: Water
Analysis Batch: 347575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346914

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		02/18/21 05:36	02/24/21 11:03	1

Lab Sample ID: LCS 180-346914/2-A
Matrix: Water
Analysis Batch: 347383

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346914

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	5.00	5.17		mg/L		103	80 - 120
Arsenic	1.00	0.953		mg/L		95	80 - 120
Manganese	0.500	0.500		mg/L		100	80 - 120
Barium	1.00	1.01		mg/L		101	80 - 120
Beryllium	0.500	0.516		mg/L		103	80 - 120
Cadmium	0.500	0.502		mg/L		100	80 - 120
Calcium	25.0	27.0		mg/L		108	80 - 120
Chromium	0.500	0.507		mg/L		101	80 - 120
Cobalt	0.500	0.490		mg/L		98	80 - 120
Lead	0.500	0.503		mg/L		101	80 - 120
Lithium	0.500	0.494		mg/L		99	80 - 120
Molybdenum	0.500	0.504		mg/L		101	80 - 120
Selenium	1.00	0.988		mg/L		99	80 - 120
Silver	0.250	0.247		mg/L		99	80 - 120
Thallium	1.00	1.04		mg/L		104	80 - 120
Potassium	25.0	24.7		mg/L		99	80 - 120
Magnesium	25.0	25.5		mg/L		102	80 - 120
Sodium	25.0	26.4		mg/L		106	80 - 120

Lab Sample ID: LCS 180-346914/2-A
Matrix: Water
Analysis Batch: 347575

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346914

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.25		mg/L		100	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-346981/1-A
Matrix: Water
Analysis Batch: 347383

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.020		0.050	0.020	mg/L		02/18/21 11:38	02/19/21 21:36	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		02/18/21 11:38	02/19/21 21:36	1
Manganese	<0.00087		0.0050	0.00087	mg/L		02/18/21 11:38	02/19/21 21:36	1
Barium	<0.0016		0.010	0.0016	mg/L		02/18/21 11:38	02/19/21 21:36	1
Beryllium	<0.00018		0.0010	0.00018	mg/L		02/18/21 11:38	02/19/21 21:36	1
Cadmium	<0.00022		0.0010	0.00022	mg/L		02/18/21 11:38	02/19/21 21:36	1
Calcium	<0.13		0.50	0.13	mg/L		02/18/21 11:38	02/19/21 21:36	1
Chromium	<0.0015		0.0020	0.0015	mg/L		02/18/21 11:38	02/19/21 21:36	1
Cobalt	<0.00013		0.00050	0.00013	mg/L		02/18/21 11:38	02/19/21 21:36	1
Lead	<0.00013		0.0010	0.00013	mg/L		02/18/21 11:38	02/19/21 21:36	1
Lithium	<0.0034		0.0050	0.0034	mg/L		02/18/21 11:38	02/19/21 21:36	1
Molybdenum	<0.00061		0.0050	0.00061	mg/L		02/18/21 11:38	02/19/21 21:36	1
Selenium	<0.0015		0.0050	0.0015	mg/L		02/18/21 11:38	02/19/21 21:36	1
Silver	<0.00018		0.0010	0.00018	mg/L		02/18/21 11:38	02/19/21 21:36	1
Thallium	<0.00015		0.0010	0.00015	mg/L		02/18/21 11:38	02/19/21 21:36	1
Potassium	<0.16		0.50	0.16	mg/L		02/18/21 11:38	02/19/21 21:36	1
Magnesium	<0.083		0.50	0.083	mg/L		02/18/21 11:38	02/19/21 21:36	1
Sodium	<0.35		0.50	0.35	mg/L		02/18/21 11:38	02/19/21 21:36	1

Lab Sample ID: MB 180-346981/1-A
Matrix: Water
Analysis Batch: 347575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0751	J	0.080	0.039	mg/L		02/18/21 11:38	02/24/21 13:02	1

Lab Sample ID: LCS 180-346981/2-A
Matrix: Water
Analysis Batch: 347383

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	5.00	5.23		mg/L		105	80 - 120
Arsenic	1.00	0.974		mg/L		97	80 - 120
Manganese	0.500	0.503		mg/L		101	80 - 120
Barium	1.00	1.02		mg/L		102	80 - 120
Beryllium	0.500	0.531		mg/L		106	80 - 120
Cadmium	0.500	0.509		mg/L		102	80 - 120
Calcium	25.0	27.7		mg/L		111	80 - 120
Chromium	0.500	0.509		mg/L		102	80 - 120
Cobalt	0.500	0.496		mg/L		99	80 - 120
Lead	0.500	0.508		mg/L		102	80 - 120
Lithium	0.500	0.491		mg/L		98	80 - 120
Molybdenum	0.500	0.510		mg/L		102	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Silver	0.250	0.252		mg/L		101	80 - 120
Thallium	1.00	1.07		mg/L		107	80 - 120
Potassium	25.0	25.3		mg/L		101	80 - 120
Magnesium	25.0	26.4		mg/L		106	80 - 120
Sodium	25.0	27.5		mg/L		110	80 - 120

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 180-346981/2-A
Matrix: Water
Analysis Batch: 347575

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.28		mg/L		102	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-346287/1-A
Matrix: Water
Analysis Batch: 347002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/11/21 12:26	02/18/21 11:52	1

Lab Sample ID: LCS 180-346287/2-A
Matrix: Water
Analysis Batch: 347002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00247		mg/L		99	80 - 120

Lab Sample ID: MB 180-346437/1-A
Matrix: Water
Analysis Batch: 347409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/12/21 13:22	02/23/21 10:43	1

Lab Sample ID: LCS 180-346437/2-A
Matrix: Water
Analysis Batch: 347409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00250		mg/L		100	80 - 120

Lab Sample ID: MB 180-347613/1-A
Matrix: Water
Analysis Batch: 347773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 347613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		02/25/21 08:39	02/26/21 11:37	1

Lab Sample ID: LCS 180-347613/2-A
Matrix: Water
Analysis Batch: 347773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 347613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00268		mg/L		107	80 - 120

Method: EPA 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 180-116980-2 MS
Matrix: Water
Analysis Batch: 347773

Client Sample ID: FB-1
Prep Type: Total/NA
Prep Batch: 347613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00013		0.00100	0.00103		mg/L		103	75 - 125

Lab Sample ID: 180-116980-2 MSD
Matrix: Water
Analysis Batch: 347773

Client Sample ID: FB-1
Prep Type: Total/NA
Prep Batch: 347613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00013		0.00100	0.00103		mg/L		103	75 - 125	0	20

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 180-346413/1-A
Matrix: Water
Analysis Batch: 346511

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 14:38	1

Lab Sample ID: LCS 180-346413/2-A
Matrix: Water
Analysis Batch: 346511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346413

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	14.1	12.2		mg/L		86	85 - 115

Lab Sample ID: MB 180-346416/1-A
Matrix: Water
Analysis Batch: 346513

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346416

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/12/21 13:00	02/12/21 15:34	1

Lab Sample ID: LCS 180-346416/2-A
Matrix: Water
Analysis Batch: 346513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	14.1	12.4		mg/L		87	85 - 115

Lab Sample ID: 180-117033-2 MS
Matrix: Water
Analysis Batch: 346513

Client Sample ID: ARGWC-8
Prep Type: Total/NA
Prep Batch: 346416

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	<2.1		14.1	12.5		mg/L		88	75 - 125

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 180-117033-2 MSD
Matrix: Water
Analysis Batch: 346513

Client Sample ID: ARGWC-8
Prep Type: Total/NA
Prep Batch: 346416

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	<2.1		14.1	12.7		mg/L		90	75 - 125	2	20

Lab Sample ID: MB 180-346996/1-A
Matrix: Water
Analysis Batch: 347087

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346996

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<2.1		3.0	2.1	mg/L		02/18/21 12:27	02/18/21 16:10	1

Lab Sample ID: LCS 180-346996/2-A
Matrix: Water
Analysis Batch: 347087

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346996

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	12.8	11.5		mg/L		90	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-346425/2
Matrix: Water
Analysis Batch: 346425

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/12/21 12:15	1

Lab Sample ID: LCS 180-346425/1
Matrix: Water
Analysis Batch: 346425

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	412		mg/L		90	80 - 120

Lab Sample ID: MB 180-346428/2
Matrix: Water
Analysis Batch: 346428

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/12/21 12:18	1

Lab Sample ID: LCS 180-346428/1
Matrix: Water
Analysis Batch: 346428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	408		mg/L		89	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 180-346820/2
Matrix: Water
Analysis Batch: 346820

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/17/21 10:34	1

Lab Sample ID: LCS 180-346820/1
Matrix: Water
Analysis Batch: 346820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	420		mg/L		92	80 - 120

Lab Sample ID: 180-117034-2 DU
Matrix: Water
Analysis Batch: 346820

Client Sample ID: ARAMW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1500		1610		mg/L		6	10

Lab Sample ID: 180-117035-2 DU
Matrix: Water
Analysis Batch: 346820

Client Sample ID: ARGWC-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	460		444		mg/L		4	10

Lab Sample ID: MB 180-346849/2
Matrix: Water
Analysis Batch: 346849

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/17/21 13:17	1

Lab Sample ID: LCS 180-346849/1
Matrix: Water
Analysis Batch: 346849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	438		mg/L		96	80 - 120

Lab Sample ID: 180-117034-3 DU
Matrix: Water
Analysis Batch: 346849

Client Sample ID: ARGWC-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		124		mg/L		8	10

Lab Sample ID: MB 180-347022/2
Matrix: Water
Analysis Batch: 347022

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/18/21 15:55	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 180-347022/1
Matrix: Water
Analysis Batch: 347022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	414		mg/L		91	80 - 120

Lab Sample ID: 180-117100-6 DU
Matrix: Water
Analysis Batch: 347022

Client Sample ID: ARGWA-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	290		294		mg/L		3	10

Lab Sample ID: MB 180-347676/1
Matrix: Water
Analysis Batch: 347676

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/25/21 14:46	1

Lab Sample ID: LCS 180-347676/2
Matrix: Water
Analysis Batch: 347676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	370		mg/L		81	80 - 120

Method: SM2320 B - Alkalinity, Total

Lab Sample ID: MB 180-346651/29
Matrix: Water
Analysis Batch: 346651

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			02/13/21 15:15	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 15:15	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 15:15	1

Lab Sample ID: MB 180-346651/6
Matrix: Water
Analysis Batch: 346651

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			02/13/21 11:47	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 11:47	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/13/21 11:47	1

Lab Sample ID: LCS 180-346651/28
Matrix: Water
Analysis Batch: 346651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	245		mg/L		98	90 - 110

Method: SM2320 B - Alkalinity, Total (Continued)

Lab Sample ID: LCS 180-346651/5
Matrix: Water
Analysis Batch: 346651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	239		mg/L		96	90 - 110

Lab Sample ID: LLCS 180-346651/4
Matrix: Water
Analysis Batch: 346651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	20.0	20.2		mg/L		101	90 - 110

Lab Sample ID: MB 180-346799/30
Matrix: Water
Analysis Batch: 346799

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			02/16/21 16:43	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 16:43	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 16:43	1

Lab Sample ID: MB 180-346799/6
Matrix: Water
Analysis Batch: 346799

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			02/16/21 13:03	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 13:03	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/16/21 13:03	1

Lab Sample ID: LCS 180-346799/29
Matrix: Water
Analysis Batch: 346799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	259		mg/L		104	90 - 110

Lab Sample ID: LCS 180-346799/5
Matrix: Water
Analysis Batch: 346799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	242		mg/L		97	90 - 110

Method: SM2320 B - Alkalinity, Total (Continued)

Lab Sample ID: LLCS 180-346799/4
Matrix: Water
Analysis Batch: 346799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	20.0	22.9	*+	mg/L		114	90 - 110

Lab Sample ID: 180-117035-1 DU
Matrix: Water
Analysis Batch: 346799

Client Sample ID: EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	<5.0	*+	<5.0	*+	mg/L		NC	20
Bicarbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20

Lab Sample ID: MB 180-347175/54
Matrix: Water
Analysis Batch: 347175

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.0		5.0	5.0	mg/L			02/19/21 19:01	1
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/19/21 19:01	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	5.0	mg/L			02/19/21 19:01	1

Lab Sample ID: LCS 180-347175/53
Matrix: Water
Analysis Batch: 347175

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 110

HPLC/IC

Analysis Batch: 346228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116987-1	ARGWA-12	Total/NA	Water	EPA 300.0 R2.1	
180-116987-2	ARGWA-24	Total/NA	Water	EPA 300.0 R2.1	
180-116987-3	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
180-116987-4	ARAMW-6	Total/NA	Water	EPA 300.0 R2.1	
180-116988-1	ARGWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-116988-2	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-116988-3	ARGWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-117033-2	ARGWC-8	Total/NA	Water	EPA 300.0 R2.1	
180-117034-1	ARAMW-3	Total/NA	Water	EPA 300.0 R2.1	
180-117034-2	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-117034-2	ARAMW-4	Total/NA	Water	EPA 300.0 R2.1	
180-117034-3	ARGWC-7	Total/NA	Water	EPA 300.0 R2.1	
180-117035-1	EB-1	Total/NA	Water	EPA 300.0 R2.1	
180-117035-2	ARGWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-117035-2	ARGWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-117035-3	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
MB 180-346228/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-346228/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-116988-2 MS	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-116988-2 MSD	ARGWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-117035-3 MS	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-117035-3 MSD	ARGWC-9	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 346231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-116980-1	ARGWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-116980-2	FB-1	Total/NA	Water	EPA 300.0 R2.1	
180-116983-1	ARGWA-5	Total/NA	Water	EPA 300.0 R2.1	
180-116983-2	ARGWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-116983-3	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
MB 180-346231/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-346231/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-116983-3 MS	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	
180-116983-3 MSD	ARGWC-16	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 346366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-6	ARGWA-14	Total/NA	Water	EPA 300.0 R2.1	
MB 180-346366/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-346366/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 346287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116987-2	ARGWA-24	Total/NA	Water	7470A	
180-116987-3	DUP-1	Total/NA	Water	7470A	
MB 180-346287/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-346287/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals

Prep Batch: 346437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117035-1	EB-1	Total/NA	Water	7470A	
MB 180-346437/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-346437/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 346793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total Recoverable	Water	3005A	
180-116980-2	FB-1	Total Recoverable	Water	3005A	
180-116983-1	ARGWA-5	Total Recoverable	Water	3005A	
180-116983-2	ARGWA-3	Total Recoverable	Water	3005A	
180-116983-3	ARGWC-16	Total Recoverable	Water	3005A	
180-116987-1	ARGWA-12	Total Recoverable	Water	3005A	
180-116987-2	ARGWA-24	Total Recoverable	Water	3005A	
180-116987-3	DUP-1	Total Recoverable	Water	3005A	
180-116987-4	ARAMW-6	Total Recoverable	Water	3005A	
180-116988-1	ARGWC-10	Total Recoverable	Water	3005A	
180-116988-2	ARGWC-15	Total Recoverable	Water	3005A	
180-116988-3	ARGWC-17	Total Recoverable	Water	3005A	
MB 180-346793/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346793/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 346794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Dissolved	Water	3005A	
180-116980-2	FB-1	Dissolved	Water	3005A	
180-116987-1	ARGWA-12	Dissolved	Water	3005A	
180-116987-2	ARGWA-24	Dissolved	Water	3005A	
180-116987-3	DUP-1	Dissolved	Water	3005A	
180-116987-4	ARAMW-6	Dissolved	Water	3005A	
180-116988-1	ARGWC-10	Dissolved	Water	3005A	
180-116988-2	ARGWC-15	Dissolved	Water	3005A	
180-116988-3	ARGWC-17	Dissolved	Water	3005A	
MB 180-346794/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346794/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 346842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117034-1	ARAMW-3	Dissolved	Water	3005A	
180-117034-1	ARAMW-3	Total Recoverable	Water	3005A	
180-117034-2	ARAMW-4	Dissolved	Water	3005A	
180-117034-2	ARAMW-4	Total Recoverable	Water	3005A	
180-117034-3	ARGWC-7	Dissolved	Water	3005A	
180-117034-3	ARGWC-7	Total Recoverable	Water	3005A	
180-117035-1	EB-1	Dissolved	Water	3005A	
180-117035-1	EB-1	Total Recoverable	Water	3005A	
180-117035-2	ARGWC-18	Total Recoverable	Water	3005A	
180-117035-3	ARGWC-9	Total Recoverable	Water	3005A	
MB 180-346842/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346842/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Prep Batch: 346914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Dissolved	Water	3005A	
180-117033-2	ARGWC-8	Total Recoverable	Water	3005A	
MB 180-346914/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346914/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 346981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-1	ARGWC-16	Dissolved	Water	3005A	
180-117100-2	ARGWC-18	Dissolved	Water	3005A	
180-117100-3	ARGWC-9	Dissolved	Water	3005A	
180-117100-4	ARGWA-3	Dissolved	Water	3005A	
180-117100-5	ARGWA-5	Dissolved	Water	3005A	
180-117100-6	ARGWA-14	Total Recoverable	Water	3005A	
MB 180-346981/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-346981/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 347002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116987-2	ARGWA-24	Total/NA	Water	EPA 7470A	346287
180-116987-3	DUP-1	Total/NA	Water	EPA 7470A	346287
MB 180-346287/1-A	Method Blank	Total/NA	Water	EPA 7470A	346287
LCS 180-346287/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	346287

Analysis Batch: 347047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Dissolved	Water	EPA 6020B	346794
180-116980-1	ARGWA-13	Total Recoverable	Water	EPA 6020B	346793
180-116980-2	FB-1	Dissolved	Water	EPA 6020B	346794
180-116980-2	FB-1	Total Recoverable	Water	EPA 6020B	346793
180-116983-1	ARGWA-5	Total Recoverable	Water	EPA 6020B	346793
180-116983-2	ARGWA-3	Total Recoverable	Water	EPA 6020B	346793
180-116983-3	ARGWC-16	Total Recoverable	Water	EPA 6020B	346793
180-116987-1	ARGWA-12	Dissolved	Water	EPA 6020B	346794
180-116987-1	ARGWA-12	Total Recoverable	Water	EPA 6020B	346793
180-116987-2	ARGWA-24	Dissolved	Water	EPA 6020B	346794
180-116987-2	ARGWA-24	Total Recoverable	Water	EPA 6020B	346793
180-116987-3	DUP-1	Dissolved	Water	EPA 6020B	346794
180-116987-3	DUP-1	Total Recoverable	Water	EPA 6020B	346793
180-116987-4	ARAMW-6	Dissolved	Water	EPA 6020B	346794
180-116987-4	ARAMW-6	Total Recoverable	Water	EPA 6020B	346793
180-116988-1	ARGWC-10	Dissolved	Water	EPA 6020B	346794
180-116988-1	ARGWC-10	Total Recoverable	Water	EPA 6020B	346793
180-116988-2	ARGWC-15	Dissolved	Water	EPA 6020B	346794
180-116988-2	ARGWC-15	Total Recoverable	Water	EPA 6020B	346793
180-116988-3	ARGWC-17	Dissolved	Water	EPA 6020B	346794
180-116988-3	ARGWC-17	Total Recoverable	Water	EPA 6020B	346793
180-117034-1	ARAMW-3	Dissolved	Water	EPA 6020B	346842
180-117034-1	ARAMW-3	Total Recoverable	Water	EPA 6020B	346842
180-117034-2	ARAMW-4	Dissolved	Water	EPA 6020B	346842
180-117034-2	ARAMW-4	Total Recoverable	Water	EPA 6020B	346842
180-117034-3	ARGWC-7	Dissolved	Water	EPA 6020B	346842

Metals (Continued)

Analysis Batch: 347047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117034-3	ARGWC-7	Total Recoverable	Water	EPA 6020B	346842
180-117035-1	EB-1	Dissolved	Water	EPA 6020B	346842
180-117035-1	EB-1	Total Recoverable	Water	EPA 6020B	346842
180-117035-2	ARGWC-18	Total Recoverable	Water	EPA 6020B	346842
180-117035-3	ARGWC-9	Total Recoverable	Water	EPA 6020B	346842
MB 180-346793/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346793
MB 180-346794/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346794
MB 180-346842/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346842
LCS 180-346793/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346793
LCS 180-346794/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346794
LCS 180-346842/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346842

Analysis Batch: 347383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Dissolved	Water	EPA 6020B	346914
180-117033-2	ARGWC-8	Total Recoverable	Water	EPA 6020B	346914
180-117100-1	ARGWC-16	Dissolved	Water	EPA 6020B	346981
180-117100-2	ARGWC-18	Dissolved	Water	EPA 6020B	346981
180-117100-3	ARGWC-9	Dissolved	Water	EPA 6020B	346981
180-117100-4	ARGWA-3	Dissolved	Water	EPA 6020B	346981
180-117100-5	ARGWA-5	Dissolved	Water	EPA 6020B	346981
180-117100-6	ARGWA-14	Total Recoverable	Water	EPA 6020B	346981
MB 180-346914/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346914
MB 180-346981/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346981
LCS 180-346914/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346914
LCS 180-346981/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346981

Analysis Batch: 347409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117035-1	EB-1	Total/NA	Water	EPA 7470A	346437
MB 180-346437/1-A	Method Blank	Total/NA	Water	EPA 7470A	346437
LCS 180-346437/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	346437

Analysis Batch: 347575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Total Recoverable	Water	EPA 6020B	346914
MB 180-346914/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346914
MB 180-346981/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	346981
LCS 180-346914/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346914
LCS 180-346981/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	346981

Prep Batch: 347613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-2	FB-1	Total/NA	Water	7470A	
MB 180-347613/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-347613/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-116980-2 MS	FB-1	Total/NA	Water	7470A	
180-116980-2 MSD	FB-1	Total/NA	Water	7470A	

Metals

Analysis Batch: 347728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-6	ARGWA-14	Total Recoverable	Water	EPA 6020B	346981

Analysis Batch: 347773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-2	FB-1	Total/NA	Water	EPA 7470A	347613
MB 180-347613/1-A	Method Blank	Total/NA	Water	EPA 7470A	347613
LCS 180-347613/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	347613
180-116980-2 MS	FB-1	Total/NA	Water	EPA 7470A	347613
180-116980-2 MSD	FB-1	Total/NA	Water	EPA 7470A	347613

General Chemistry

Prep Batch: 346413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	9030B	
180-116980-2	FB-1	Total/NA	Water	9030B	
180-116983-1	ARGWA-5	Total/NA	Water	9030B	
180-116983-2	ARGWA-3	Total/NA	Water	9030B	
180-116983-3	ARGWC-16	Total/NA	Water	9030B	
180-116987-1	ARGWA-12	Total/NA	Water	9030B	
180-116987-2	ARGWA-24	Total/NA	Water	9030B	
180-116987-3	DUP-1	Total/NA	Water	9030B	
180-116987-4	ARAMW-6	Total/NA	Water	9030B	
180-116988-1	ARGWC-10	Total/NA	Water	9030B	
180-116988-2	ARGWC-15	Total/NA	Water	9030B	
180-116988-3	ARGWC-17	Total/NA	Water	9030B	
MB 180-346413/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-346413/2-A	Lab Control Sample	Total/NA	Water	9030B	

Prep Batch: 346416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Total/NA	Water	9030B	
180-117034-1	ARAMW-3	Total/NA	Water	9030B	
180-117034-2	ARAMW-4	Total/NA	Water	9030B	
180-117034-3	ARGWC-7	Total/NA	Water	9030B	
180-117035-1	EB-1	Total/NA	Water	9030B	
180-117035-2	ARGWC-18	Total/NA	Water	9030B	
180-117035-3	ARGWC-9	Total/NA	Water	9030B	
MB 180-346416/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-346416/2-A	Lab Control Sample	Total/NA	Water	9030B	
180-117033-2 MS	ARGWC-8	Total/NA	Water	9030B	
180-117033-2 MSD	ARGWC-8	Total/NA	Water	9030B	

Analysis Batch: 346425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	SM 2540C	
180-116987-1	ARGWA-12	Total/NA	Water	SM 2540C	
180-116987-2	ARGWA-24	Total/NA	Water	SM 2540C	
180-116987-3	DUP-1	Total/NA	Water	SM 2540C	
180-116987-4	ARAMW-6	Total/NA	Water	SM 2540C	
180-116988-1	ARGWC-10	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 346425 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116988-2	ARGWC-15	Total/NA	Water	SM 2540C	
180-116988-3	ARGWC-17	Total/NA	Water	SM 2540C	
MB 180-346425/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-346425/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 346428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-2	FB-1	Total/NA	Water	SM 2540C	
180-116983-1	ARGWA-5	Total/NA	Water	SM 2540C	
180-116983-2	ARGWA-3	Total/NA	Water	SM 2540C	
180-116983-3	ARGWC-16	Total/NA	Water	SM 2540C	
MB 180-346428/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-346428/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 346511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	EPA 9034	346413
180-116980-2	FB-1	Total/NA	Water	EPA 9034	346413
180-116983-1	ARGWA-5	Total/NA	Water	EPA 9034	346413
180-116983-2	ARGWA-3	Total/NA	Water	EPA 9034	346413
180-116983-3	ARGWC-16	Total/NA	Water	EPA 9034	346413
180-116987-1	ARGWA-12	Total/NA	Water	EPA 9034	346413
180-116987-2	ARGWA-24	Total/NA	Water	EPA 9034	346413
180-116987-3	DUP-1	Total/NA	Water	EPA 9034	346413
180-116987-4	ARAMW-6	Total/NA	Water	EPA 9034	346413
180-116988-1	ARGWC-10	Total/NA	Water	EPA 9034	346413
180-116988-2	ARGWC-15	Total/NA	Water	EPA 9034	346413
180-116988-3	ARGWC-17	Total/NA	Water	EPA 9034	346413
MB 180-346413/1-A	Method Blank	Total/NA	Water	EPA 9034	346413
LCS 180-346413/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	346413

Analysis Batch: 346513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Total/NA	Water	EPA 9034	346416
180-117034-1	ARAMW-3	Total/NA	Water	EPA 9034	346416
180-117034-2	ARAMW-4	Total/NA	Water	EPA 9034	346416
180-117034-3	ARGWC-7	Total/NA	Water	EPA 9034	346416
180-117035-1	EB-1	Total/NA	Water	EPA 9034	346416
180-117035-2	ARGWC-18	Total/NA	Water	EPA 9034	346416
180-117035-3	ARGWC-9	Total/NA	Water	EPA 9034	346416
MB 180-346416/1-A	Method Blank	Total/NA	Water	EPA 9034	346416
LCS 180-346416/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	346416
180-117033-2 MS	ARGWC-8	Total/NA	Water	EPA 9034	346416
180-117033-2 MSD	ARGWC-8	Total/NA	Water	EPA 9034	346416

Analysis Batch: 346651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	SM2320 B	
180-116980-2	FB-1	Total/NA	Water	SM2320 B	
180-116983-1	ARGWA-5	Total/NA	Water	SM2320 B	
180-116983-2	ARGWA-3	Total/NA	Water	SM2320 B	

General Chemistry (Continued)

Analysis Batch: 346651 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116983-3	ARGWC-16	Total/NA	Water	SM2320 B	
180-116987-1	ARGWA-12	Total/NA	Water	SM2320 B	
180-116987-2	ARGWA-24	Total/NA	Water	SM2320 B	
180-116987-3	DUP-1	Total/NA	Water	SM2320 B	
180-116987-4	ARAMW-6	Total/NA	Water	SM2320 B	
180-116988-1	ARGWC-10	Total/NA	Water	SM2320 B	
180-116988-2	ARGWC-15	Total/NA	Water	SM2320 B	
MB 180-346651/29	Method Blank	Total/NA	Water	SM2320 B	
MB 180-346651/6	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-346651/28	Lab Control Sample	Total/NA	Water	SM2320 B	
LCS 180-346651/5	Lab Control Sample	Total/NA	Water	SM2320 B	
LLCS 180-346651/4	Lab Control Sample	Total/NA	Water	SM2320 B	

Analysis Batch: 346799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Total/NA	Water	SM2320 B	
180-117034-1	ARAMW-3	Total/NA	Water	SM2320 B	
180-117034-2	ARAMW-4	Total/NA	Water	SM2320 B	
180-117034-3	ARGWC-7	Total/NA	Water	SM2320 B	
180-117035-1	EB-1	Total/NA	Water	SM2320 B	
180-117035-2	ARGWC-18	Total/NA	Water	SM2320 B	
180-117035-3	ARGWC-9	Total/NA	Water	SM2320 B	
180-117100-6	ARGWA-14	Total/NA	Water	SM2320 B	
MB 180-346799/30	Method Blank	Total/NA	Water	SM2320 B	
MB 180-346799/6	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-346799/29	Lab Control Sample	Total/NA	Water	SM2320 B	
LCS 180-346799/5	Lab Control Sample	Total/NA	Water	SM2320 B	
LLCS 180-346799/4	Lab Control Sample	Total/NA	Water	SM2320 B	
180-117035-1 DU	EB-1	Total/NA	Water	SM2320 B	

Analysis Batch: 346820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Total/NA	Water	SM 2540C	
180-117034-1	ARAMW-3	Total/NA	Water	SM 2540C	
180-117034-2	ARAMW-4	Total/NA	Water	SM 2540C	
180-117035-2	ARGWC-18	Total/NA	Water	SM 2540C	
180-117035-3	ARGWC-9	Total/NA	Water	SM 2540C	
MB 180-346820/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-346820/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-117034-2 DU	ARAMW-4	Total/NA	Water	SM 2540C	
180-117035-2 DU	ARGWC-18	Total/NA	Water	SM 2540C	

Analysis Batch: 346849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117034-3	ARGWC-7	Total/NA	Water	SM 2540C	
180-117035-1	EB-1	Total/NA	Water	SM 2540C	
MB 180-346849/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-346849/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-117034-3 DU	ARGWC-7	Total/NA	Water	SM 2540C	

General Chemistry

Prep Batch: 346996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-6	ARGWA-14	Total/NA	Water	9030B	
MB 180-346996/1-A	Method Blank	Total/NA	Water	9030B	
LCS 180-346996/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 347022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-6	ARGWA-14	Total/NA	Water	SM 2540C	
MB 180-347022/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-347022/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-117100-6 DU	ARGWA-14	Total/NA	Water	SM 2540C	

Analysis Batch: 347087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-6	ARGWA-14	Total/NA	Water	EPA 9034	346996
MB 180-346996/1-A	Method Blank	Total/NA	Water	EPA 9034	346996
LCS 180-346996/2-A	Lab Control Sample	Total/NA	Water	EPA 9034	346996

Analysis Batch: 347175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116988-3	ARGWC-17	Total/NA	Water	SM2320 B	
MB 180-347175/54	Method Blank	Total/NA	Water	SM2320 B	
LCS 180-347175/53	Lab Control Sample	Total/NA	Water	SM2320 B	

Analysis Batch: 347676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116988-3	ARGWC-17	Total/NA	Water	SM 2540C	
MB 180-347676/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-347676/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 346556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-1	ARGWC-16	Total/NA	Water	Field Sampling	
180-117100-2	ARGWC-18	Total/NA	Water	Field Sampling	
180-117100-3	ARGWC-9	Total/NA	Water	Field Sampling	
180-117100-4	ARGWA-3	Total/NA	Water	Field Sampling	
180-117100-5	ARGWA-5	Total/NA	Water	Field Sampling	
180-117100-6	ARGWA-14	Total/NA	Water	Field Sampling	

Analysis Batch: 346598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116983-1	ARGWA-5	Total/NA	Water	Field Sampling	
180-116983-2	ARGWA-3	Total/NA	Water	Field Sampling	
180-116983-3	ARGWC-16	Total/NA	Water	Field Sampling	
180-116987-1	ARGWA-12	Total/NA	Water	Field Sampling	
180-116987-2	ARGWA-24	Total/NA	Water	Field Sampling	
180-116987-3	DUP-1	Total/NA	Water	Field Sampling	
180-116987-4	ARAMW-6	Total/NA	Water	Field Sampling	
180-116988-1	ARGWC-10	Total/NA	Water	Field Sampling	
180-116988-2	ARGWC-15	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 346598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116988-3	ARGWC-17	Total/NA	Water	Field Sampling	
180-117033-2	ARGWC-8	Total/NA	Water	Field Sampling	
180-117034-1	ARAMW-3	Total/NA	Water	Field Sampling	
180-117034-2	ARAMW-4	Total/NA	Water	Field Sampling	
180-117034-3	ARGWC-7	Total/NA	Water	Field Sampling	
180-117035-2	ARGWC-18	Total/NA	Water	Field Sampling	
180-117035-3	ARGWC-9	Total/NA	Water	Field Sampling	

Analysis Batch: 347771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: DHoward, EGuillen, TParker, ASheredith	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	7470A(Hg) 6020B(Sb)				Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D						
FB-1	2/9/21	0940	G	W	N		X	X	X	X	X	X	X	X	X	X				7	—
ARGWA-13	2/9/21	1152	G	W	Y		X	X	X	X	X	X	X	X	X					7	pH=5.79

180-116980 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
David Howard	2/9/21 1845	Wood		2/10/21 900	ETH Pitt
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: D Howard, EGuillen T Parker A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III Appl/V no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D		
ARGWA-5	2/9/21	1140	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 5.88
ARGWA-3	↓	1355	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 5.94
ARGWC-16	↓	1535	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 5.24

180-116983 Chain of Custody

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, (II), III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Daniel Howard	2/9/21 / 1845	Wood		2/10/21 900	EPA PM
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Client Information	Sampler: D Howard, E Gullen, T Parker, A Shoreditch	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.4
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 4 of 4
Company: Southern Company	PWSID:			Job #
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III Appl'V no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	7470A (Hg) - 60208 Sb	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D	D		
ARGWA-12	2/9/21	1010	G	W	Y		X	X	X	X	X	X	X	X	X		7	5.92 pH
ARGWA-24		1225	G	W	Y		X	X	X	X	X	X	X	X	X	X	7	5.69 pH
DUP-1		—	G	W	Y		X	X	X	X	X	X	X	X	X	X	7	5.69 pH
ARAMW-6	↓	1530	G	W	Y		X	X	X	X	X	X	X	X	X		7	6.34 pH

180-116987 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: Daniel Howard	Date/Time: 2/9/21 / 1845	Company: Wood	Received by: MY	Date/Time: 2/10/21 900	Company: ETA PIT	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: D Howard, E Guillen, T Parker, A Sanderlin	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D		
ARGWC-10	2/9/21	1630	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH=5.94
ARGWC-15	↓	1215	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH=6.43
ARGWC-17	↓	1430	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH=5.17

180-116988 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Daniel Howard	2/9/21 1845	Wood		2/10/21 900	EAT
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: DHoward, EGaillen, T Parker, AShoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D		
ARAMW-1	2/10/21	1445	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 6.16
ARGWC-8	↓	1015	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 6.45
ARGWC-21	↓	1240	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 6.01

180-117033 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
David Howard	2/10/21/1810	Wood	MJ	2/11/21 930	ETA PHL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing America

Client Information	Sampler: T Parker D Howard, E Guillen, A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 ~~of 4~~
Company: Southern Company	PWSID:			Job #:

Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:
City: Atlanta	TAT Requested (days): Standard
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No
Phone:	PO #: GPC11064570
Email: JAbraham@southernco.com	WO #:
Project Name: Plant Arkwright	Project #: 18020201
Site: Georgia	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:			D	D	N	N	CB	D	D	N	D		
ARAMW-3	2/10/21	0925	G	W	Y	X	X	X	X	X	X	X	X	X	7	pH=6.15
ARAMW-4	↓	1145	G	W	Y	X	X	X	X	X	X	X	X	X	7	pH=5.64
ARGWC-7	↓	5.77	G	W	Y	X	X	X	X	X	X	X	X	X	7	pH=5.77

180-117034 Chain of Custody

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Daniel Howard	Date/Time: 2/10/21/1810	Company: Wood	Received by:	Date/Time: 2/11/21 935	Company: BTA PTF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

3/1/2021

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: DHoward, EGuillen TParker- AShoreditz	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 ~~of 4~~
Company: Southern Company	PWSID:	Analysis Requested		Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			Preservation Codes:
City: Atlanta	TAT Requested (days): Standard			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			Other:
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	6020B (Sb), 7470A (Hg)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D	D		
~~DI EB-2~~ EB-1	2/10/21	0935	G	W	Y		X	X	X	X	X	X	X	X	X	X	7	
ARGWC-18	↓	1200	G	W	Y		X	X	X	X	X	X	X	X	X		7	pH=5.99
ARGWC-9	↓	1535	G	W	Y		X	X	X	X	X	X	X	X	X		7	pH=5.91

180-117035 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological	[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months
Deliverable Requested: I, (II), III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Daniel Howard	Date/Time: 2/10/21 1810	Company: Wood	Received by: [signature] Date/Time: 2/11/21 930 Company: ~~EA~~ PM
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: DHoward, EGuillen, TParker, AShoreditis	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL M - Hexane
B - NaOH N - None

180-117100 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of co	Special Instructions/Note:
Preservation Code:							D	D	N	N	CB	D	D	N	D		
ARGWC-16	2/11/21	1400	G	W	Y		X									1	pH=5.23
ARGWC-18		1235	G	W	Y		X									1	pH=6.03
ARGWC-9		1350	G	W	Y		X									1	pH=5.95
ARGWA-3		1250	G	W	Y		X									1	pH=5.94
ARGWA-5		1315	G	W	Y		X									1	pH=5.87
ARGWA-14		1458	G	W	N		X	X	X	X		X	X	X		1	pH=7.02
																	* Only one 1L bottle was collected For Radium due to very slow recharge

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Daniel Howard	2/11/21 / 1730	Wood		2/12/21 845	ETA PH
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020


2 or 3 Business Days
FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
Packaging
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 09FEB21
ACTWGT: 86.10 LB
CAD: 6994493/SSFE2121
DIMS: 24x14x14 IN
BILL THIRD PARTY
TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963- 7058
REF:
DEPT:
FedEx Express
TRK# 0215 8121 9394 5083
WED - 10 FEB 10:30A
PRIORITY OVERNIGHT
NA AGCA
DSR
15238
PIT
Uncorrected temp 24 °C
Thermometer ID 14
CF 6 Initials
PT-WI-SR-001 effective 11/8/18
180-116980 Waybill


FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 09FEB21
ACTWGT: 50.10 LB
CAD: 6994493/SSFE2121
DIMS: 24x14x14 IN
BILL THIRD PARTY
TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT:
TRK# 0215 8121 9394 5072
WED - 10 FEB 10:30
PRIORITY OVERNIGH
NA AGCA
PA-US
Uncorrected temp 23 °C
Thermometer ID 14
CF C
Initials
PT-WI-SR-001 effective 11/8/18
180-116983 Waybill

180-116987 Waybill

3/1/2021

Express Package Service * To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 09FEB21
ACTWGT: 56.90 LB
CAD: 6994493/SSFE2121
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0215 **8121 9394 5094**

WED -- 10 FEB 10:30A
PRIORITY OVERNIGHT

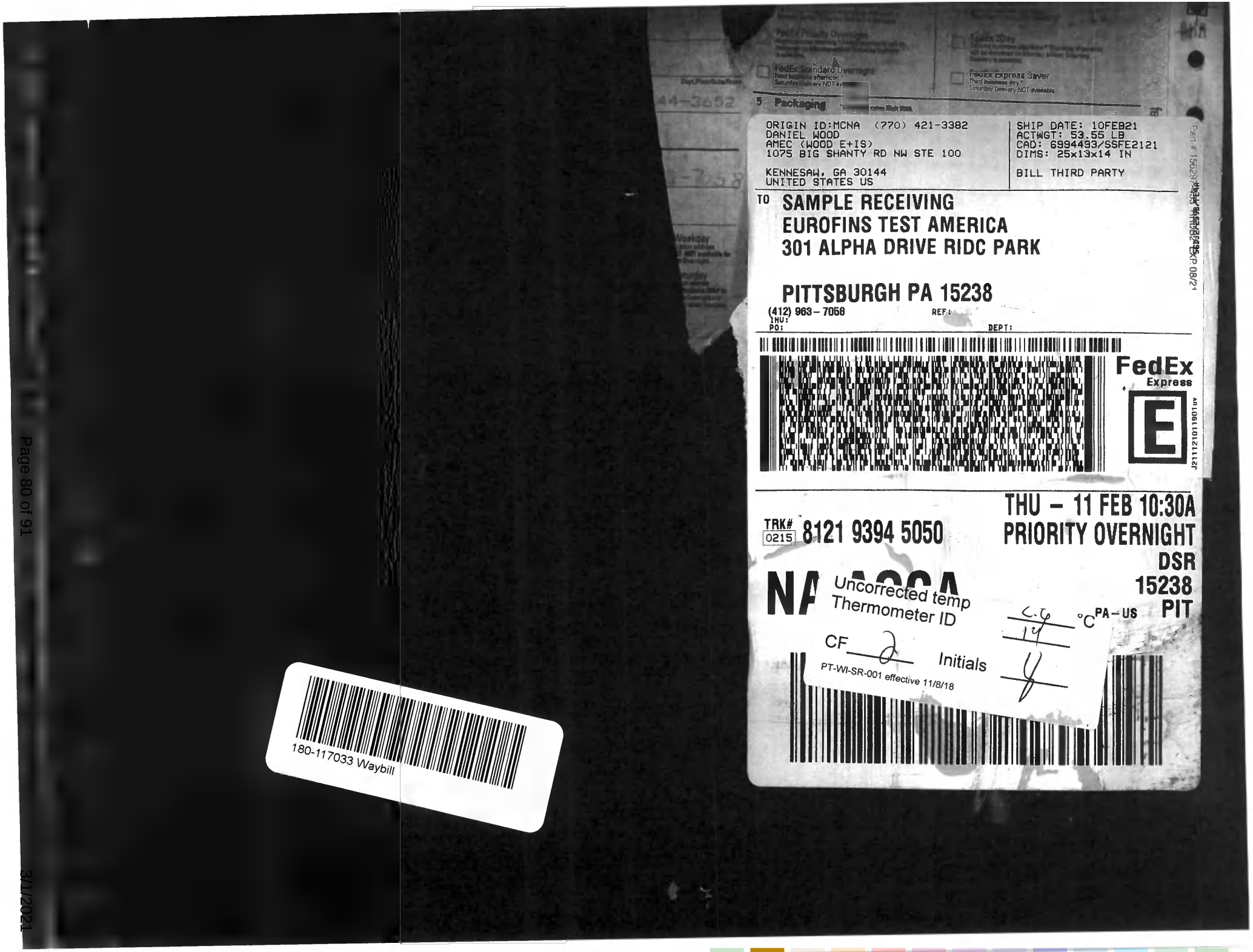
NA AGCA

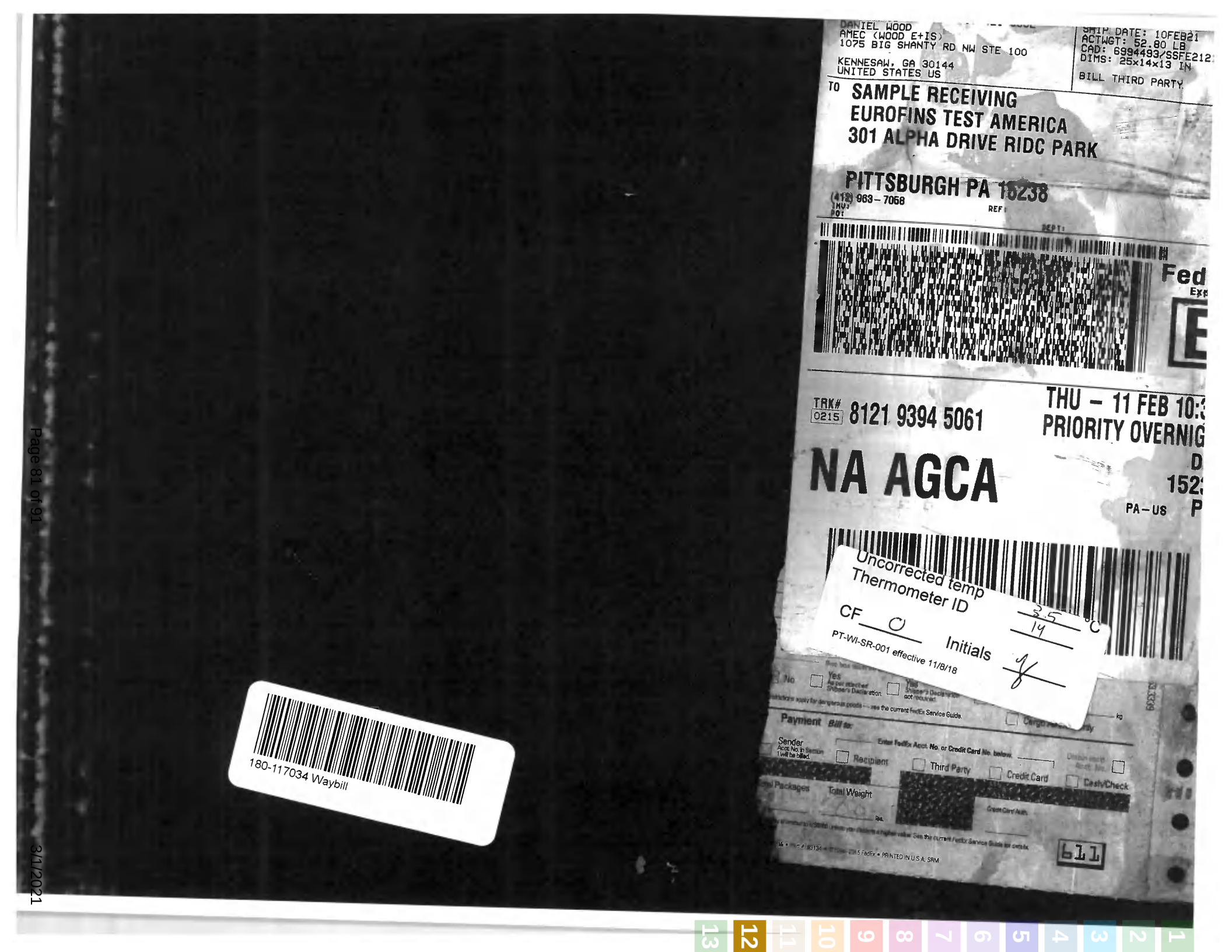
15238
PA-US **PIT**

Uncorrected temp 35 °C
Thermometer ID 1M

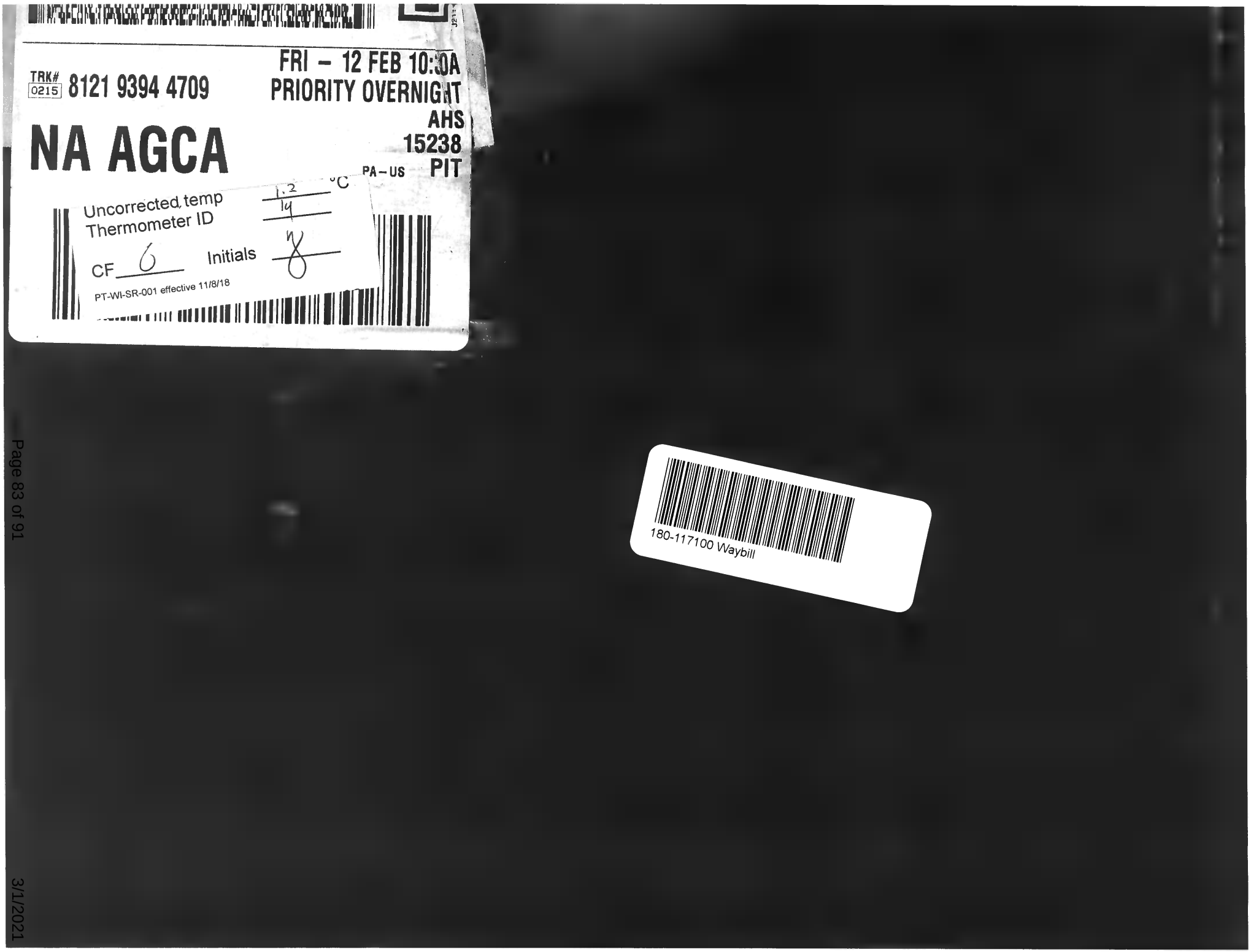
CF 0 Initials Y

PT-WI-SR-001 effective 11/8/18


Packaging
ORIGIN ID:MCNA (770) 421-3382
DANIEL WOOD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 10FEB21
ACTWGT: 53.55 LB
CAD: 6994493/SSFE2121
DIMS: 25x13x14 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DRIVE RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT:
FedEx Express
TRK# 0215 8121 9394 5050
THU - 11 FEB 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
NA
Uncorrected temp
Thermometer ID
CF 2
Initials
PT-WI-SR-001 effective 11/8/18
°C PA-US
180-117033 Waybill
Part # 156291-XXXX REV XXX EXP 08/21


DANIEL WOOD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 10FEB21
ACTWGT: 52.80 LB
CAD: 6994493/SSFE212
DIMS: 25x14x13 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DRIVE RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF:
DEPT:
TRK# 0215 8121 9394 5061
THU - 11 FEB 10:
PRIORITY OVERNIG
NA AGCA
PA-US
Uncorrected temp
Thermometer ID
3.5 °C
CF 0
14
Initials
PT-WI-SR-001 effective 11/8/18
Payment
Sender
Recipient
Third Party
Credit Card
Cash/Check
Total Packages
Total Weight
611
180-117034 Waybill


39
0215
Recipient's Copy
4 Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Standard Overnight
2 or 3 Business Days
FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
5 Packaging
FedEx Envelope*
FedEx Pak*
FedEx Box
FedEx Tube
Other
fedex.com
ORIGIN ID:MCNA (770) 421-8382
DANIEL WOOD
AMEC (WOOD E+I$)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 10FEB21
ACTWGT: 51.15 LB
CAD: 6994493/SSFE2121
DIMS: 25x14x13 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DRIVE RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF:
DEPT:
TRK# 0215 8121 9394 5039
THU - 11 FEB 1
PRIORITY OVERN
NA ACCA
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18
180-117035 Waybill
Page 82 of 91
3/1/2021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FRI - 12 FEB 10:30A
PRIORITY OVERNIGHT
AHS
15238
PIT
NA AGCA
PA-US
Uncorrected temp 1.2 °C
Thermometer ID 14
CF 6 Initials
PT-WI-SR-001 effective 11/8/18
180-117100 Waybill

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 116980
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 116983
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 116987
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 116988
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 117033
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 117034
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 117035
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-1

Login Number: 117100
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-116980-2
Client Project/Site: CCR - Plant Arkwright AP-3
Sampling Event: ARKWRIGHT AP-3 initial scan

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
3/22/2021 5:56:27 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Job ID: 180-116980-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-116980-2

Comments
No additional comments.

Receipt
The samples were received on 2/10/2021 9:00 AM, 2/11/2021 9:30 AM and 2/12/2021 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 1.2º C, 2.3º C, 2.4º C, 2.4º C, 2.6º C, 2.9º C, 3.5º C and 3.5º C.

RAD
Methods 903.0, 9315: Radium-226 Batch 498914
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-5 (180-116983-1), ARGWA-3 (180-116983-2), ARGWC-16 (180-116983-3), ARGWA-12 (180-116987-1), ARGWA-24 (180-116987-2), DUP-1 (180-116987-3), ARAMW-6 (180-116987-4), ARGWC-10 (180-116988-1), ARGWC-15 (180-116988-2), ARGWC-17 (180-116988-3), (LCS 160-498914/1-A), (LCSD 160-498914/2-A) and (MB 160-498914/17-A)

Methods 903.0, 9315: Radium-226 batch 498981
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-13 (180-116980-1), FB-1 (180-116980-2), (LCS 160-498981/1-A) and (LCSD 160-498981/2-A)

Methods 903.0, 9315: 903/9315 prep batch 499133
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWC-8 (180-117033-2), ARAMW-3 (180-117034-1), ARAMW-4 (180-117034-2), ARGWC-7 (180-117034-3), EB-1 (180-117035-1), ARGWC-18 (180-117035-2), ARGWC-9 (180-117035-3), (LCS 160-499133/1-A), (LCSD 160-499133/2-A) and (MB 160-499133/23-A)

Methods 903.0, 9315: Radium-226 batch 499580
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-14 (180-117100-6), (LCS 160-499580/1-A), (LCSD 160-499580/2-A) and (MB 160-499580/17-A)

Methods 904.0, 9320: Radium-228 Batch 499586
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-14 (180-117100-6), (LCS 160-499586/1-A), (LCSD 160-499586/2-A) and (MB 160-499586/17-A)

Methods 904.0, 9320: Radium 228 498991
The LCS recovered at 136% for radium-228. The limits in our LIMS system at 75-125% reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of 61-138% per method requirements. Although there is a qualifier, the LCS passes. No further action is required.

Methods 904.0, 9320: Radium-228 Batch 160-498916
The laboratory control sample/laboratory control sample duplicate (LCS/LCSD), associated with the following samples in radium-228 batch 160-498916, recovered at 136%/135%, respectively, for radium-228. The limits in our LIMS system at 75-125% reflect the requirements of a regulatory agency, that represents a large amount of our work. However, the samples associated with this LCS are not from this agency; therefore, they are held to our in-house statistical limits of 61-138%, per method requirements. Although there is a

Job ID: 180-116980-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

qualifier, the LCS passes. No further action is required.

Methods 904.0, 9320: Radium-228 prep batch 160-498916
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-5 (180-116983-1), ARGWA-3 (180-116983-2), ARGWC-16 (180-116983-3), ARGWA-12 (180-116987-1), ARGWA-24 (180-116987-2), DUP-1 (180-116987-3), ARAMW-6 (180-116987-4), ARGWC-10 (180-116988-1), ARGWC-15 (180-116988-2), ARGWC-17 (180-116988-3), (LCS 160-498916/1-A), (LCSD 160-498916/2-A) and (MB 160-498916/17-A)

Methods 904.0, 9320: Radium-228 prep batch 160-499136:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWC-8 (180-117033-2), ARAMW-3 (180-117034-1), ARAMW-4 (180-117034-2), ARGWC-7 (180-117034-3), EB-1 (180-117035-1), ARGWC-18 (180-117035-2), ARGWC-9 (180-117035-3), (LCS 160-499136/1-A), (LCSD 160-499136/2-A) and (MB 160-499136/23-A)

Methods 904.0, 9320: <Insert Method> Prep Batch 160-498991
The Ra228 laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recovery (LCS-149% LCSD-129%) associated with the following sample(s) is outside the upper QC limit of (75-125) indicating a potential positive bias for that analyte. This analyte was not observed above the RL in the associated samples; therefore the sample data is not adversely affected by this excursion. The data have been reported with this narrative. (LCS 160-498991/1-A) and (LCSD 160-498991/2-A)

Methods 904.0, 9320: 9320/904 PREP BATCH 498991
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. ARGWA-13 (180-116980-1), FB-1 (180-116980-2), (LCS 160-498991/1-A), (LCSD 160-498991/2-A) and (MB 160-498991/23-A)

Method PrecSep_0: Radium 228 Prep Batch 160-498916:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-3 (180-116983-2), ARGWC-16 (180-116983-3), ARGWA-12 (180-116987-1), ARGWA-24 (180-116987-2), DUP-1 (180-116987-3), ARAMW-6 (180-116987-4), ARGWC-10 (180-116988-1), ARGWC-15 (180-116988-2) and ARGWC-17 (180-116988-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-498916:
The following samples were prepared at a reduced aliquot: ARGWA-5 (180-116983-1). Sample 180-116977-2 contained a cloudy appearance. Sample 180-116983-1 contained a noticeable sediment level. Sample 160-41207-1 contained brown discoloration, a cloudy appearance, and heavy sediment levels. Sample 160-41207-4 contained yellow discoloration.

A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-498916:
During the in growth process, the following samples needed to be filtered due to sediment present in the sample. This being an indicator of matrix interference. ARGWA-5 (180-116983-1), ARGWA-3 (180-116983-2), ARGWC-16 (180-116983-3), DUP-1 (180-116987-3), ARAMW-6 (180-116987-4) and ARGWC-10 (180-116988-1).

Sample 160-41207-D-1 was weighed at 500 mL and required thirteen 0.45 filters to filter the sample.

Method PrecSep_0: Radium 226 Prep Batch 160-498991:
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-498991.

Method PrecSep_0: Radium 228 Prep Batch 160-499136:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWC-8 (180-117033-2), ARAMW-3

Job ID: 180-116980-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

(180-117034-1), ARAMW-4 (180-117034-2), ARGWC-7 (180-117034-3), EB-1 (180-117035-1), ARGWC-18 (180-117035-2) and ARGWC-9 (180-117035-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-499586:
The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: ARGWA-14 (180-117100-6).

During the in-growth process,the following samples needed to be filtered due to sediment present in the sample. This is an indicator of matrix interference. Samples 180-117102-4, 180-117155-1, 180-117155-2, 180-117155-3, 160-41268-1, 160-41268-2 and 160-40977-2.

Method PrecSep_0: Radium 228 Prep Batch 160-499586:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-14 (180-117100-6). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-498914:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-3 (180-116983-2), ARGWC-16 (180-116983-3), ARGWA-12 (180-116987-1), ARGWA-24 (180-116987-2), DUP-1 (180-116987-3), ARAMW-6 (180-116987-4), ARGWC-10 (180-116988-1), ARGWC-15 (180-116988-2) and ARGWC-17 (180-116988-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-498914:
The following samples were prepared at a reduced aliquot: ARGWA-5 (180-116983-1). Sample 180-116977-2 contained a cloudy appearance. Sample 180-116983-1 contained a noticeable sediment level. Sample 160-41207-1 contained brown discoloration, a cloudy appearance, and heavy sediment levels. Sample 160-41207-4 contained yellow discoloration.

A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-498914:
During the in growth process, the following samples needed to be filtered due to sediment present in the sample. This being an indicator of matrix interference. ARGWA-5 (180-116983-1), ARGWA-3 (180-116983-2), ARGWC-16 (180-116983-3), DUP-1 (180-116987-3), ARAMW-6 (180-116987-4) and ARGWC-10 (180-116988-1).

Sample 160-41207-D-1 was weighed at 500 mL and required thirteen 0.45 filters to filter the sample.

Method PrecSep-21: Radium 226 Prep Batch 160-498981:
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-498981.

Method PrecSep-21: Radium 226 Prep Batch 160-499133:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWC-8 (180-117033-2), ARAMW-3 (180-117034-1), ARAMW-4 (180-117034-2), ARGWC-7 (180-117034-3), EB-1 (180-117035-1), ARGWC-18 (180-117035-2) and ARGWC-9 (180-117035-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-499580:
The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: ARGWA-14 (180-117100-6).

During the in-growth process,the following samples needed to be filtered due to sediment present in the sample. This is an indicator of matrix interference. Samples 180-117102-4, 180-117155-1, 180-117155-2, 180-117155-3, 160-41268-1, 160-41268-2 and 160-40977-2.

Method PrecSep-21: Radium 226 Prep Batch 160-499580:
Insufficient sample volume was available to perform a sample duplicate for the following samples: ARGWA-14 (180-117100-6). A

Job ID: 180-116980-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Job ID: 180-116980-2
Project/Site: CCR - Plant Arkwright AP-3

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Job ID: 180-116980-2
Project/Site: CCR - Plant Arkwright AP-3

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	01-01-22
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-116980-1	ARGWA-13	Water	02/09/21 11:52	02/10/21 09:00	
180-116980-2	FB-1	Water	02/09/21 09:40	02/10/21 09:00	
180-116983-1	ARGWA-5	Water	02/09/21 11:40	02/10/21 09:00	
180-116983-2	ARGWA-3	Water	02/09/21 13:55	02/10/21 09:00	
180-116983-3	ARGWC-16	Water	02/09/21 15:35	02/10/21 09:00	
180-116987-1	ARGWA-12	Water	02/09/21 10:10	02/10/21 09:00	
180-116987-2	ARGWA-24	Water	02/09/21 12:25	02/10/21 09:00	
180-116987-3	DUP-1	Water	02/09/21 00:00	02/10/21 09:00	
180-116987-4	ARAMW-6	Water	02/09/21 15:30	02/10/21 09:00	
180-116988-1	ARGWC-10	Water	02/09/21 16:30	02/10/21 09:00	
180-116988-2	ARGWC-15	Water	02/09/21 12:15	02/10/21 09:00	
180-116988-3	ARGWC-17	Water	02/09/21 14:30	02/10/21 09:00	
180-117033-2	ARGWC-8	Water	02/10/21 10:15	02/11/21 09:30	
180-117034-1	ARAMW-3	Water	02/10/21 09:25	02/11/21 09:30	
180-117034-2	ARAMW-4	Water	02/10/21 11:45	02/11/21 09:30	
180-117034-3	ARGWC-7	Water	02/10/21 14:30	02/11/21 09:30	
180-117035-1	EB-1	Water	02/10/21 09:35	02/11/21 09:30	
180-117035-2	ARGWC-18	Water	02/10/21 12:00	02/11/21 09:30	
180-117035-3	ARGWC-9	Water	02/10/21 15:35	02/11/21 09:30	
180-117100-6	ARGWA-14	Water	02/11/21 14:58	02/12/21 08:45	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARGWA-13
Date Collected: 02/09/21 11:52
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.82 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis	9315		1			501647	03/12/21 10:46	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			999.82 mL	1.0 g	498991	02/17/21 14:48	KMP	TAL SL
Total/NA	Analysis	9320		1			500442	03/02/21 09:03	AK	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502277	03/17/21 15:17	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: FB-1
Date Collected: 02/09/21 09:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.27 mL	1.0 g	498981	02/17/21 12:19	KMP	TAL SL
Total/NA	Analysis	9315		1			501647	03/12/21 10:46	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.27 mL	1.0 g	498991	02/17/21 14:48	KMP	TAL SL
Total/NA	Analysis	9320		1	1.0 mL	1.0 mL	500442	03/02/21 09:03	AK	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502277	03/17/21 15:17	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-5
Date Collected: 02/09/21 11:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.05 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:22	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			750.05 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:41	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-3
Date Collected: 02/09/21 13:55
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.18 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:22	ANW	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARGWA-3
Date Collected: 02/09/21 13:55
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.18 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:42	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-16
Date Collected: 02/09/21 15:35
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.65 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:22	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.65 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:42	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-12
Date Collected: 02/09/21 10:10
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.78 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:23	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.78 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:42	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-24
Date Collected: 02/09/21 12:25
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.85 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:17	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.85 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:43	SCB	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARGWA-24
Date Collected: 02/09/21 12:25
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL

Client Sample ID: DUP-1
Date Collected: 02/09/21 00:00
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.67 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:18	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			999.67 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:43	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-6
Date Collected: 02/09/21 15:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			999.18 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:18	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			999.18 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:43	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-10
Date Collected: 02/09/21 16:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.39 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:19	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.39 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:43	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-15

Lab Sample ID: 180-116988-2

Date Collected: 02/09/21 12:15

Matrix: Water

Date Received: 02/10/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.82 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:19	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.82 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:44	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-17

Lab Sample ID: 180-116988-3

Date Collected: 02/09/21 14:30

Matrix: Water

Date Received: 02/10/21 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.14 mL	1.0 g	498914	02/16/21 09:21	KMP	TAL SL
Total/NA	Analysis	9315		1			501455	03/10/21 12:20	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.14 mL	1.0 g	498916	02/16/21 09:47	KMP	TAL SL
Total/NA	Analysis	9320		1			500371	03/01/21 08:44	SCB	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502271	03/17/21 15:13	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-8

Lab Sample ID: 180-117033-2

Date Collected: 02/10/21 10:15

Matrix: Water

Date Received: 02/11/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.92 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	9315		1			501946	03/15/21 16:52	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.92 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	9320		1			500812	03/04/21 08:33	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-3

Lab Sample ID: 180-117034-1

Date Collected: 02/10/21 09:25

Matrix: Water

Date Received: 02/11/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.08 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	9315		1			501946	03/15/21 16:53	FLC	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARAMW-3
Date Collected: 02/10/21 09:25
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.08 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	9320		1			500812	03/04/21 08:33	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARAMW-4
Date Collected: 02/10/21 11:45
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.17 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	9315		1			501946	03/15/21 16:53	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.17 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	9320		1			500812	03/04/21 08:33	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-7
Date Collected: 02/10/21 14:30
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.95 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	9315		1			501946	03/15/21 16:53	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.95 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	9320		1			500812	03/04/21 08:33	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: EB-1
Date Collected: 02/10/21 09:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.94 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	9315		1			501946	03/15/21 16:54	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.94 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	9320		1			500812	03/04/21 08:33	CMM	TAL SL
	Instrument ID: GFPCBLUE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: EB-1
Date Collected: 02/10/21 09:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL

Client Sample ID: ARGWC-18
Date Collected: 02/10/21 12:00
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.38 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	9315		1			501946	03/15/21 16:54	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.38 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	9320		1			500812	03/04/21 08:33	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWC-9
Date Collected: 02/10/21 15:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.70 mL	1.0 g	499133	02/18/21 09:54	KMP	TAL SL
Total/NA	Analysis	9315		1			501946	03/15/21 16:54	FLC	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.70 mL	1.0 g	499136	02/18/21 10:43	KMP	TAL SL
Total/NA	Analysis	9320		1	1.0 mL	1.0 mL	500812	03/04/21 08:34	CMM	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			502274	03/17/21 15:15	SCB	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-14
Date Collected: 02/11/21 14:58
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750.27 mL	1.0 g	499580	02/23/21 12:22	JEC	TAL SL
Total/NA	Analysis	9315		1			502262	03/17/21 10:30	ANW	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			750.27 mL	1.0 g	499586	02/23/21 13:10	JEC	TAL SL
Total/NA	Analysis	9320		1			500370	03/01/21 08:50	ANW	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Analysis	Ra226_Ra228		1			502270	03/17/21 15:12	SCB	TAL SL
	Instrument ID: NOEQUIP									

Laboratory References:
TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Analyst References:

Lab: TAL SL

Batch Type: Prep

JEC = Julia Crossen

KMP = Karen Phillips

Batch Type: Analysis

AK = Amanda Kraus

ANW = Aamber Woods

CMM = Chelsea Mazariegos

FLC = Fernando Cruz

SCB = Sarah Bernsen

Client Sample ID: ARGWA-13

Date Collected: 02/09/21 11:52
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00894	U	0.0563	0.0563	1.00	0.113	pCi/L	02/17/21 12:19	03/12/21 10:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.5*		*40 - 110*	*02/17/21 12:19*	*03/12/21 10:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.385	U *	0.347	0.349	1.00	0.557	pCi/L	02/17/21 14:48	03/02/21 09:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.5*		*40 - 110*	*02/17/21 14:48*	*03/02/21 09:03*	*1*
Y Carrier	*79.6*		*40 - 110*	*02/17/21 14:48*	*03/02/21 09:03*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.394	U	0.352	0.354	5.00	0.557	pCi/L		03/17/21 15:17	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: FB-1
Date Collected: 02/09/21 09:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116980-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00759	U	0.0553	0.0554	1.00	0.117	pCi/L	02/17/21 12:19	03/12/21 10:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*02/17/21 12:19*	*03/12/21 10:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.207	U *	0.287	0.288	1.00	0.480	pCi/L	02/17/21 14:48	03/02/21 09:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*02/17/21 14:48*	*03/02/21 09:03*	*1*
Y Carrier	*78.5*		*40 - 110*	*02/17/21 14:48*	*03/02/21 09:03*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.200	U	0.292	0.293	5.00	0.480	pCi/L		03/17/21 15:17	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARGWA-5

Date Collected: 02/09/21 11:40
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0406	U	0.0717	0.0718	1.00	0.166	pCi/L	02/16/21 09:21	03/10/21 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.272	U *	0.338	0.339	1.00	0.656	pCi/L	02/16/21 09:47	03/01/21 08:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:41*	*1*
Y Carrier	*76.3*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.312	U	0.346	0.347	5.00	0.656	pCi/L		03/17/21 15:13	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARGWA-3
Date Collected: 02/09/21 13:55
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0663	U	0.0880	0.0882	1.00	0.147	pCi/L	02/16/21 09:21	03/10/21 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.8*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.253	U *	0.223	0.224	1.00	0.450	pCi/L	02/16/21 09:47	03/01/21 08:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.8*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:42*	*1*
Y Carrier	*78.1*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.187	U	0.240	0.241	5.00	0.450	pCi/L		03/17/21 15:13	1

Client Sample ID: ARGWC-16

Date Collected: 02/09/21 15:35
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116983-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.145**		0.0985	0.0994	1.00	0.140	pCi/L	02/16/21 09:21	03/10/21 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.4*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.314	U *	0.273	0.274	1.00	0.435	pCi/L	02/16/21 09:47	03/01/21 08:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.4*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:42*	*1*
Y Carrier	*76.3*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.460**		0.290	0.291	5.00	0.435	pCi/L		03/17/21 15:13	1

Client Sample ID: ARGWA-12

Date Collected: 02/09/21 10:10
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0792	U	0.0917	0.0920	1.00	0.150	pCi/L	02/16/21 09:21	03/10/21 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.08**	*	0.353	0.367	1.00	0.467	pCi/L	02/16/21 09:47	03/01/21 08:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:42*	*1*
Y Carrier	*74.0*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.16**		0.365	0.378	5.00	0.467	pCi/L		03/17/21 15:13	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARGWA-24

Date Collected: 02/09/21 12:25
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0383	U	0.0556	0.0557	1.00	0.0950	pCi/L	02/16/21 09:21	03/10/21 12:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00717	U *	0.219	0.219	1.00	0.398	pCi/L	02/16/21 09:47	03/01/21 08:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*
Y Carrier	*76.3*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0311	U	0.226	0.226	5.00	0.398	pCi/L		03/17/21 15:13	1

Client Sample ID: DUP-1

Date Collected: 02/09/21 00:00
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0470	U	0.0687	0.0688	1.00	0.117	pCi/L	02/16/21 09:21	03/10/21 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.126	U *	0.253	0.253	1.00	0.434	pCi/L	02/16/21 09:47	03/01/21 08:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*
Y Carrier	*76.6*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.173	U	0.262	0.262	5.00	0.434	pCi/L		03/17/21 15:13	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARAMW-6

Date Collected: 02/09/21 15:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116987-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0465	U	0.0668	0.0670	1.00	0.114	pCi/L	02/16/21 09:21	03/10/21 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.134	U *	0.237	0.237	1.00	0.404	pCi/L	02/16/21 09:47	03/01/21 08:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*
Y Carrier	*76.6*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.180	U	0.246	0.246	5.00	0.404	pCi/L		03/17/21 15:13	1

Client Sample ID: ARGWC-10

Date Collected: 02/09/21 16:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00764	U	0.0529	0.0529	1.00	0.106	pCi/L	02/16/21 09:21	03/10/21 12:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.4*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.156	U *	0.276	0.276	1.00	0.468	pCi/L	02/16/21 09:47	03/01/21 08:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.4*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*
Y Carrier	*75.5*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.163	U	0.281	0.281	5.00	0.468	pCi/L		03/17/21 15:13	1

Client Sample ID: ARGWC-15

Date Collected: 02/09/21 12:15
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.0764	0.0770	1.00	0.110	pCi/L	02/16/21 09:21	03/10/21 12:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.3*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.569**	*	0.305	0.310	1.00	0.452	pCi/L	02/16/21 09:47	03/01/21 08:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.3*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:44*	*1*
Y Carrier	*75.1*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:44*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.669**		0.314	0.319	5.00	0.452	pCi/L		03/17/21 15:13	1

Client Sample ID: ARGWC-17

Date Collected: 02/09/21 14:30
Date Received: 02/10/21 09:00

Lab Sample ID: 180-116988-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0760	U	0.0715	0.0718	1.00	0.109	pCi/L	02/16/21 09:21	03/10/21 12:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.256	U *	0.271	0.272	1.00	0.442	pCi/L	02/16/21 09:47	03/01/21 08:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:44*	*1*
Y Carrier	*75.1*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:44*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.332	U	0.280	0.281	5.00	0.442	pCi/L		03/17/21 15:13	1

Client Sample ID: ARGWC-8

Date Collected: 02/10/21 10:15
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117033-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.129**		0.0776	0.0785	1.00	0.103	pCi/L	02/18/21 09:54	03/15/21 16:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.2*		*40 - 110*	*02/18/21 09:54*	*03/15/21 16:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.255	U	0.231	0.232	1.00	0.371	pCi/L	02/18/21 10:43	03/04/21 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.2*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*
Y Carrier	*88.6*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.384**		0.244	0.245	5.00	0.371	pCi/L		03/17/21 15:15	1

Client Sample ID: ARAMW-3

Date Collected: 02/10/21 09:25
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0879	U	0.0657	0.0662	1.00	0.0929	pCi/L	02/18/21 09:54	03/15/21 16:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*02/18/21 09:54*	*03/15/21 16:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.742**		0.272	0.280	1.00	0.371	pCi/L	02/18/21 10:43	03/04/21 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*
Y Carrier	*86.7*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.830**		0.280	0.288	5.00	0.371	pCi/L		03/17/21 15:15	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARAMW-4

Date Collected: 02/10/21 11:45
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0948	U	0.0733	0.0738	1.00	0.104	pCi/L	02/18/21 09:54	03/15/21 16:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.3*		*40 - 110*	*02/18/21 09:54*	*03/15/21 16:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.837**		0.310	0.319	1.00	0.420	pCi/L	02/18/21 10:43	03/04/21 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.3*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*
Y Carrier	*89.3*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.932**		0.319	0.327	5.00	0.420	pCi/L		03/17/21 15:15	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-116980-2

Client Sample ID: ARGWC-7

Date Collected: 02/10/21 14:30
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117034-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0793	U	0.0650	0.0654	1.00	0.0954	pCi/L	02/18/21 09:54	03/15/21 16:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*40 - 110*	*02/18/21 09:54*	*03/15/21 16:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.333	U	0.221	0.224	1.00	0.339	pCi/L	02/18/21 10:43	03/04/21 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*
Y Carrier	*91.2*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.412**		0.230	0.233	5.00	0.339	pCi/L		03/17/21 15:15	1

Client Sample ID: EB-1

Date Collected: 02/10/21 09:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0263	U	0.0607	0.0607	1.00	0.111	pCi/L	02/18/21 09:54	03/15/21 16:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*02/18/21 09:54*	*03/15/21 16:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.406**		0.218	0.221	1.00	0.320	pCi/L	02/18/21 10:43	03/04/21 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*
Y Carrier	*91.6*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.432**		0.226	0.229	5.00	0.320	pCi/L		03/17/21 15:15	1

Client Sample ID: ARGWC-18

Date Collected: 02/10/21 12:00
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0514	U	0.0597	0.0599	1.00	0.0968	pCi/L	02/18/21 09:54	03/15/21 16:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*40 - 110*	*02/18/21 09:54*	*03/15/21 16:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.517**		0.258	0.262	1.00	0.380	pCi/L	02/18/21 10:43	03/04/21 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*
Y Carrier	*92.0*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.568**		0.265	0.269	5.00	0.380	pCi/L		03/17/21 15:15	1

Client Sample ID: ARGWC-9

Date Collected: 02/10/21 15:35
Date Received: 02/11/21 09:30

Lab Sample ID: 180-117035-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0930	U	0.0719	0.0724	1.00	0.105	pCi/L	02/18/21 09:54	03/15/21 16:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*02/18/21 09:54*	*03/15/21 16:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.422**		0.241	0.244	1.00	0.361	pCi/L	02/18/21 10:43	03/04/21 08:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:34*	*1*
Y Carrier	*91.6*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:34*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.515**		0.251	0.255	5.00	0.361	pCi/L		03/17/21 15:15	1

Client Sample ID: ARGWA-14

Date Collected: 02/11/21 14:58
Date Received: 02/12/21 08:45

Lab Sample ID: 180-117100-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0377	U	0.0653	0.0653	1.00	0.115	pCi/L	02/23/21 12:22	03/17/21 10:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.9*		*40 - 110*	*02/23/21 12:22*	*03/17/21 10:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.375	U	0.402	0.403	1.00	0.657	pCi/L	02/23/21 13:10	03/01/21 08:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.9*		*40 - 110*	*02/23/21 13:10*	*03/01/21 08:50*	*1*
Y Carrier	*74.4*		*40 - 110*	*02/23/21 13:10*	*03/01/21 08:50*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.413	U	0.407	0.408	5.00	0.657	pCi/L		03/17/21 15:12	1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-498914/17-A
Matrix: Water
Analysis Batch: 501455

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498914

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02884	U	0.0534	0.0534	1.00	0.0960	pCi/L	02/16/21 09:21	03/10/21 12:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*02/16/21 09:21*	*03/10/21 12:20*	*1*

Lab Sample ID: LCS 160-498914/1-A
Matrix: Water
Analysis Batch: 501455

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498914

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	11.29		1.19	1.00	0.145	pCi/L	99	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.4*		*40 - 110*

Lab Sample ID: LCSD 160-498914/2-A
Matrix: Water
Analysis Batch: 501455

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 498914

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	12.02		1.24	1.00	0.104	pCi/L	106	75 - 125	0.30	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*83.8*		*40 - 110*

Lab Sample ID: MB 160-498981/23-A
Matrix: Water
Analysis Batch: 501646

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498981

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.009238	U	0.0534	0.0534	1.00	0.104	pCi/L	02/17/21 12:19	03/12/21 12:46	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*40 - 110*	*02/17/21 12:19*	*03/12/21 12:46*	*1*

Lab Sample ID: LCS 160-498981/1-A
Matrix: Water
Analysis Batch: 501647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498981

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.42		1.09	1.00	0.102	pCi/L	92	75 - 125		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-498981/1-A
Matrix: Water
Analysis Batch: 501647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498981

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.6		40 - 110

Lab Sample ID: LCSD 160-498981/2-A
Matrix: Water
Analysis Batch: 501647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 498981

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	11.19		1.17	1.00	0.0960	pCi/L	99	75 - 125	0.34	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	82.6		40 - 110

Lab Sample ID: MB 160-499133/23-A
Matrix: Water
Analysis Batch: 501946

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499133

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02075	U	0.0544	0.0545	1.00	0.121	pCi/L	02/18/21 09:54	03/15/21 16:54	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.9		40 - 110	02/18/21 09:54	03/15/21 16:54	1

Lab Sample ID: LCS 160-499133/1-A
Matrix: Water
Analysis Batch: 501661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499133

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.860		1.02	1.00	0.104	pCi/L	87	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.9		40 - 110

Lab Sample ID: LCSD 160-499133/2-A
Matrix: Water
Analysis Batch: 501661

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499133

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	11.43		1.18	1.00	0.119	pCi/L	101	75 - 125	0.72	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	86.5		40 - 110

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-499580/17-A
Matrix: Water
Analysis Batch: 502262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499580

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07006	U	0.0691	0.0694	1.00	0.108	pCi/L	02/23/21 12:22	03/17/21 10:29	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*02/23/21 12:22*	*03/17/21 10:29*	*1*

Lab Sample ID: LCS 160-499580/1-A
Matrix: Water
Analysis Batch: 502262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499580

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.84		1.11	1.00	0.0865	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.3*		*40 - 110*

Lab Sample ID: LCSD 160-499580/2-A
Matrix: Water
Analysis Batch: 502262

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499580

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	10.91		1.12	1.00	0.0920	pCi/L	96	75 - 125	0.03	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*90.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-498916/17-A
Matrix: Water
Analysis Batch: 500371

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498916

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3904	U	0.296	0.299	1.00	0.467	pCi/L	02/16/21 09:47	03/01/21 08:45	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:45*	*1*
Y Carrier	*80.4*		*40 - 110*	*02/16/21 09:47*	*03/01/21 08:45*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-498916/1-A
Matrix: Water
Analysis Batch: 500371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498916

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.39	10.06	*	1.23	1.00	0.482	pCi/L	136	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.4*		*40 - 110*
Y Carrier	*70.3*		*40 - 110*

Lab Sample ID: LCSD 160-498916/2-A
Matrix: Water
Analysis Batch: 500371

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 498916

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.39	9.990	*	1.20	1.00	0.437	pCi/L	135	75 - 125	0.03	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*83.8*		*40 - 110*
Y Carrier	*76.3*		*40 - 110*

Lab Sample ID: MB 160-498991/23-A
Matrix: Water
Analysis Batch: 500432

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 498991

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1733	U	0.236	0.237	1.00	0.394	pCi/L	02/17/21 14:48	03/02/21 09:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*40 - 110*	*02/17/21 14:48*	*03/02/21 09:08*	*1*
Y Carrier	*86.0*		*40 - 110*	*02/17/21 14:48*	*03/02/21 09:08*	*1*

Lab Sample ID: LCS 160-498991/1-A
Matrix: Water
Analysis Batch: 500442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 498991

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.39	11.04	*	1.32	1.00	0.509	pCi/L	149	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*85.6*		*40 - 110*
Y Carrier	*72.5*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-498991/2-A
Matrix: Water
Analysis Batch: 500442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 498991

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.39	9.565	*	1.18	1.00	0.506	pCi/L	129	75 - 125	0.59	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*82.6*		*40 - 110*
Y Carrier	*77.4*		*40 - 110*

Lab Sample ID: MB 160-499136/23-A
Matrix: Water
Analysis Batch: 500812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499136

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5449		0.238	0.243	1.00	0.334	pCi/L	02/18/21 10:43	03/04/21 08:34	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.9*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:34*	*1*
Y Carrier	*90.1*		*40 - 110*	*02/18/21 10:43*	*03/04/21 08:34*	*1*

Lab Sample ID: LCS 160-499136/1-A
Matrix: Water
Analysis Batch: 500745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499136

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.38	8.560		1.04	1.00	0.425	pCi/L	116	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.9*		*40 - 110*
Y Carrier	*77.8*		*40 - 110*

Lab Sample ID: LCSD 160-499136/2-A
Matrix: Water
Analysis Batch: 500745

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499136

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.38	8.106		1.00	1.00	0.449	pCi/L	110	75 - 125	0.22	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*86.5*		*40 - 110*
Y Carrier	*81.9*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-499586/17-A
Matrix: Water
Analysis Batch: 500370

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 499586

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2715	U	0.264	0.266	1.00	0.427	pCi/L	02/23/21 13:10	03/01/21 08:54	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*02/23/21 13:10*	*03/01/21 08:54*	*1*
Y Carrier	*71.4*		*40 - 110*	*02/23/21 13:10*	*03/01/21 08:54*	*1*

Lab Sample ID: LCS 160-499586/1-A
Matrix: Water
Analysis Batch: 500370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 499586

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.39	9.005		1.10	1.00	0.468	pCi/L	122	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.3*		*40 - 110*
Y Carrier	*77.0*		*40 - 110*

Lab Sample ID: LCSD 160-499586/2-A
Matrix: Water
Analysis Batch: 500370

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 499586

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.39	8.888		1.09	1.00	0.463	pCi/L	120	75 - 125	0.05	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*90.1*		*40 - 110*
Y Carrier	*76.3*		*40 - 110*

Rad

Prep Batch: 498914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116983-1	ARGWA-5	Total/NA	Water	PrecSep-21	
180-116983-2	ARGWA-3	Total/NA	Water	PrecSep-21	
180-116983-3	ARGWC-16	Total/NA	Water	PrecSep-21	
180-116987-1	ARGWA-12	Total/NA	Water	PrecSep-21	
180-116987-2	ARGWA-24	Total/NA	Water	PrecSep-21	
180-116987-3	DUP-1	Total/NA	Water	PrecSep-21	
180-116987-4	ARAMW-6	Total/NA	Water	PrecSep-21	
180-116988-1	ARGWC-10	Total/NA	Water	PrecSep-21	
180-116988-2	ARGWC-15	Total/NA	Water	PrecSep-21	
180-116988-3	ARGWC-17	Total/NA	Water	PrecSep-21	
MB 160-498914/17-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-498914/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-498914/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 498916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116983-1	ARGWA-5	Total/NA	Water	PrecSep_0	
180-116983-2	ARGWA-3	Total/NA	Water	PrecSep_0	
180-116983-3	ARGWC-16	Total/NA	Water	PrecSep_0	
180-116987-1	ARGWA-12	Total/NA	Water	PrecSep_0	
180-116987-2	ARGWA-24	Total/NA	Water	PrecSep_0	
180-116987-3	DUP-1	Total/NA	Water	PrecSep_0	
180-116987-4	ARAMW-6	Total/NA	Water	PrecSep_0	
180-116988-1	ARGWC-10	Total/NA	Water	PrecSep_0	
180-116988-2	ARGWC-15	Total/NA	Water	PrecSep_0	
180-116988-3	ARGWC-17	Total/NA	Water	PrecSep_0	
MB 160-498916/17-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-498916/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-498916/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 498981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	PrecSep-21	
180-116980-2	FB-1	Total/NA	Water	PrecSep-21	
MB 160-498981/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-498981/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-498981/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 498991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116980-1	ARGWA-13	Total/NA	Water	PrecSep_0	
180-116980-2	FB-1	Total/NA	Water	PrecSep_0	
MB 160-498991/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-498991/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-498991/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 499133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Total/NA	Water	PrecSep-21	
180-117034-1	ARAMW-3	Total/NA	Water	PrecSep-21	
180-117034-2	ARAMW-4	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 499133 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117034-3	ARGWC-7	Total/NA	Water	PrecSep-21	
180-117035-1	EB-1	Total/NA	Water	PrecSep-21	
180-117035-2	ARGWC-18	Total/NA	Water	PrecSep-21	
180-117035-3	ARGWC-9	Total/NA	Water	PrecSep-21	
MB 160-499133/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-499133/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-499133/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 499136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117033-2	ARGWC-8	Total/NA	Water	PrecSep_0	
180-117034-1	ARAMW-3	Total/NA	Water	PrecSep_0	
180-117034-2	ARAMW-4	Total/NA	Water	PrecSep_0	
180-117034-3	ARGWC-7	Total/NA	Water	PrecSep_0	
180-117035-1	EB-1	Total/NA	Water	PrecSep_0	
180-117035-2	ARGWC-18	Total/NA	Water	PrecSep_0	
180-117035-3	ARGWC-9	Total/NA	Water	PrecSep_0	
MB 160-499136/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-499136/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-499136/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 499580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-6	ARGWA-14	Total/NA	Water	PrecSep-21	
MB 160-499580/17-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-499580/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-499580/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 499586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117100-6	ARGWA-14	Total/NA	Water	PrecSep_0	
MB 160-499586/17-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-499586/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-499586/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: DHoward, EGuillen, TParker, ASheredith	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days):			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	7470A(Hg) 6020B(Sb)				Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D						
FB-1	2/9/21	0940	G	W	N		X	X	X	X	X	X	X	X	X	X				7	—
ARGWA-13	2/9/21	1152	G	W	Y		X	X	X	X	X	X	X	X	X					7	pH=5.79

180-116980 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
David Howard	2/9/21 1845	Wood		2/10/21 900	ETH Pitt
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: D Howard, EGuillen T Parker A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III Appl/V no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D		
ARGWA-5	2/9/21	1140	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 5.88
ARGWA-3	↓	1355	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 5.94
ARGWC-16	↓	1535	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 5.24

180-116983 Chain of Custody

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, (II), III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: Daniel Howard	Date/Time: 2/9/21 / 1845	Company: Wood	Received by:	Date/Time: 2/10/21 900	Company: ETA PM
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing America

Client Information	Sampler: D Howard, E Gullen, T Parker, A Shoreditch	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.4
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 4 of 4
Company: Southern Company	PWSID:			Job #
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III App IV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	7470A (Hg) - 60208 Sb	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D	D		
ARGWA-12	2/9/21	1010	G	W	Y		X	X	X	X	X	X	X	X	X		7	5.92 pH
ARGWA-24		1225	G	W	Y		X	X	X	X	X	X	X	X	X	X	7	5.69 pH
DUP-1		—	G	W	Y		X	X	X	X	X	X	X	X	X	X	7	5.69 pH
ARAMW-6	↓	1530	G	W	Y		X	X	X	X	X	X	X	X	X		7	6.34 pH

180-116987 Chain of Custody

Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)** ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, (II), III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Daniel Howard	Date/Time: 2/9/21 / 1845	Company: Wood	Received by: MJ
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Date/Time: 2/10/21 900	Company: EtA PiT		
Date/Time:	Company:		
Date/Time:	Company:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:	

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: D Howard, E Guillen, A Sanderlin, T Parker	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D		
ARGWC-10	2/9/21	1630	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH=5.94
ARGWC-15	↓	1215	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH=6.43
ARGWC-17	↓	1430	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH=5.17

180-116988 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Daniel Howard	2/9/21 1845	Wood		2/10/21 900	EAT
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: DHoward, EGaillen, T Parker, AShoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D		
ARAMW-1	2/10/21	1445	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 6.16
ARGWC-8	↓	1015	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 6.45
ARGWC-21	↓	1240	G	W	Y		X	X	X	X	X	X	X	X	X	7	pH = 6.01

180-117033 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
David Howard	2/10/21/1810	Wood	MJ	2/11/21 930	ETA PHL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

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3/22/2021

301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing America

Client Information	Sampler: T Parker D Howard, E Guillen, A Shoredits	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 ~~of 4~~
Company: Southern Company	PWSID:			Job #:

Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Atlanta	TAT Requested (days): Standard		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No		
Phone:	PO #: GPC11064570		
Email: JAbraham@southernco.com	WO #:		
Project Name: Plant Arkwright	Project #: 18020201		
Site: Georgia	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:			D	D	N	N	CB	D	D	N	D		
ARAMW-3	2/10/21	0925	G	W	Y	X	X	X	X	X	X	X	X	X	7	pH=6.15
ARAMW-4	↓	1145	G	W	Y	X	X	X	X	X	X	X	X	X	7	pH=5.64
ARGWC-7	↓	5.77	G	W	Y	X	X	X	X	X	X	X	X	X	7	pH=5.77

180-117034 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological	[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Daniel Howard	2/10/21/1810	Wood		2/11/21 935	BTA PTF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

3/22/2021

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

eurofins | Environment Testing America

Client Information	Sampler: DHoward, EGuillen TParker- AShoreditz	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 ~~of 4~~
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): Standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	6020B (Sb), 7470A(Hg)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D	D		
~~DI EB-2~~ ER-1	2/10/21	0935	G	W	Y		X	X	X	X	X	X	X	X	X	X	7	
ARGWC-18	↓	1200	G	W	Y		X	X	X	X	X	X	X	X	X		7	pH=5.99
ARGWC-9	↓	1535	G	W	Y		X	X	X	X	X	X	X	X	X		7	pH=5.91

180-117035 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological	[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months
Deliverable Requested: I, (II), III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Daniel Howard	Date/Time: 2/10/21 1810	Company: Wood	Received by: [signature] Date/Time: 2/11/21 930 Company: ~~ETA~~ PM
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

244- ATLANTA

Eurofins Environment Testing America

Client Information	Sampler: DHoward, EGuillen, TParker, AShoreditis	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-67951-13423.1
Client Contact: Joju Abraham	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: Southern Company	PWSID:			Job #:
Address: 241 Ralph McGill Blvd SE B10185	Due Date Requested:			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308	Compliance Project: Δ Yes Δ No			
Phone:	PO #: GPC11064570			
Email: JAbraham@southernco.com	WO #:			
Project Name: Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL M - Hexane
B - NaOH N - None

180-117100 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Dissolved Fe/Mn	6020B - Custom 17 (App III AppIV no Sb + 5	300_ORGFMS - Anions Cl F NO2 NO3 SO4	2540C_Calcd - Solids, Total Dissolved (TDS)	9034_Calc - Sulfide, Acid soluble and Insoluble	9320_Ra228 - Radium 228	9315_Ra226 - Radium-226 (GFPC) - 21 day decay	2320B - Alkalinity (Total, Bicarb, Carb)	6020B - Metals (Field Filtered)	Total Number of co	Special Instructions/Note:
			Preservation Code:				D	D	N	N	CB	D	D	N	D		
ARGWC-16	2/11/21	1400	G	W	Y		X									1	pH=5.23
ARGWC-18		1235	G	W	Y		X									1	pH=6.03
ARGWC-9		1350	G	W	Y		X									1	pH=5.95
ARGWA-3		1250	G	W	Y		X									1	pH=5.94
ARGWA-5		1315	G	W	Y		X									1	pH=5.87
ARGWA-14		1458	G	W	N		X	X	X	X		X	X	X		1	pH=7.02
																	* Only one 1L bottle was collected For Radium due to very slow recharge

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Daniel Howard	2/11/21 / 1730	Wood		2/12/21 845	ETA PIT
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

3/22/2021


2 or 3 Business Days
FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 09FEB21
ACTWGT: 86.10 LB
CAD: 6994493/SSFE2121
DIMS: 24x14x14 IN
BILL THIRD PARTY
TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963- 7058
REF:
DEPT:
FedEx Express
TRK# 0215 8121 9394 5083
WED - 10 FEB 10:30A
PRIORITY OVERNIGHT
NA AGCA
DSR
15238
PIT
Uncorrected temp 24 °C
Thermometer ID 14
CF 6 Initials
PT-WI-SR-001 effective 11/8/18
180-116980 Waybill
Page 54 of 78
3/22/2021


FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 09FEB21
ACTWGT: 50.10 LB
CAD: 6994493/SSFE2121
DIMS: 24x14x14 IN
BILL THIRD PARTY
TO SAMPLE RECIEVING
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT:
TRK# 0215 8121 9394 5072
WED - 10 FEB 10:30
PRIORITY OVERNIGH
NA AGCA
PA-US
Uncorrected temp 23 °C
Thermometer ID 14
CF C
Initials
PT-WI-SR-001 effective 11/8/18
180-116983 Waybill

180-116987 Waybill

3/22/2021

Express Package Service * To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100

KENNESAW, GA 30144
UNITED STATES US

SHIP DATE: 09FEB21
ACTWGT: 56.90 LB
CAD: 6994493/SSFE2121
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO **SAMPLE RECIEVING**
EUROFINS TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0215 **8121 9394 5094**

WED -- 10 FEB 10:30A
PRIORITY OVERNIGHT

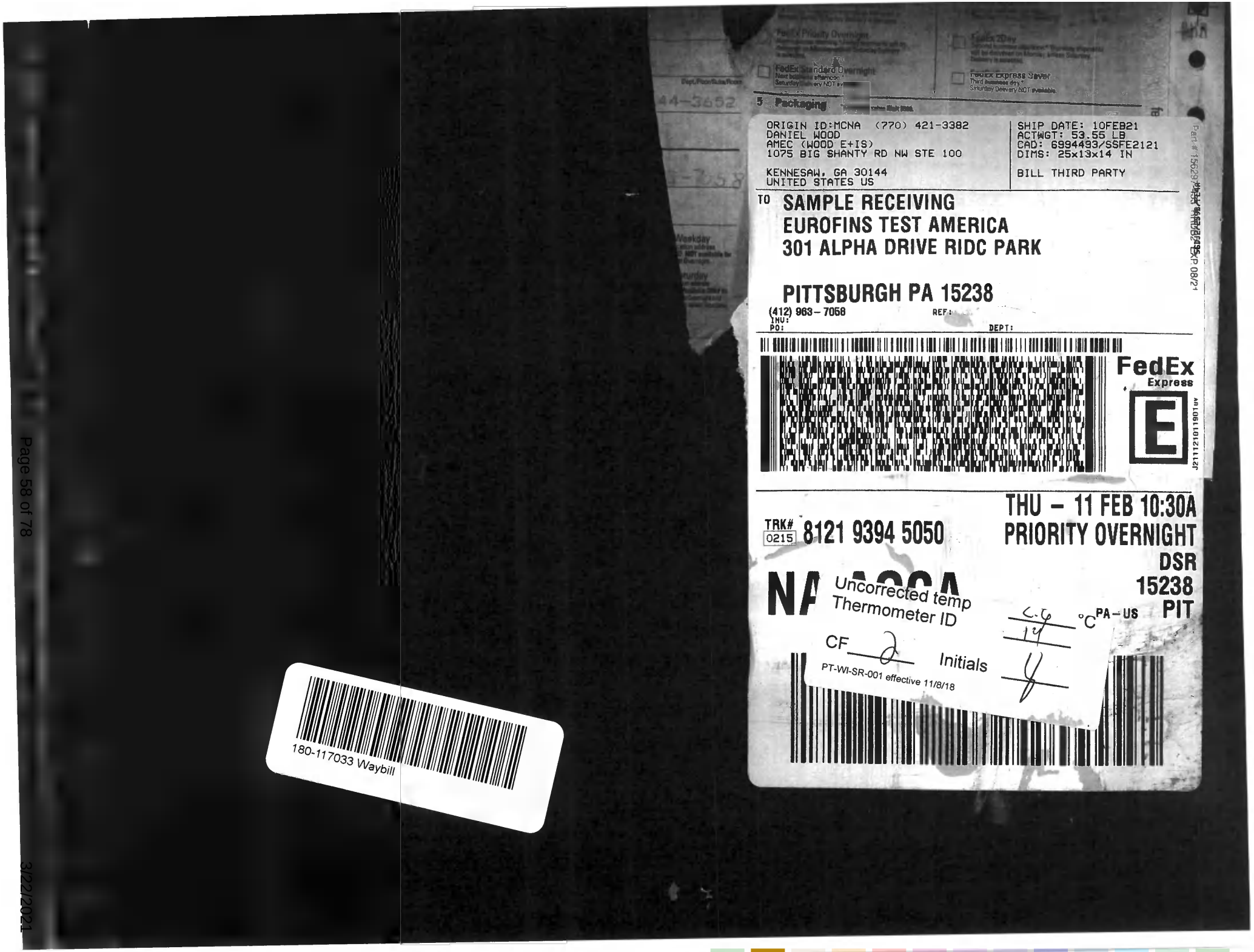
NA AGCA

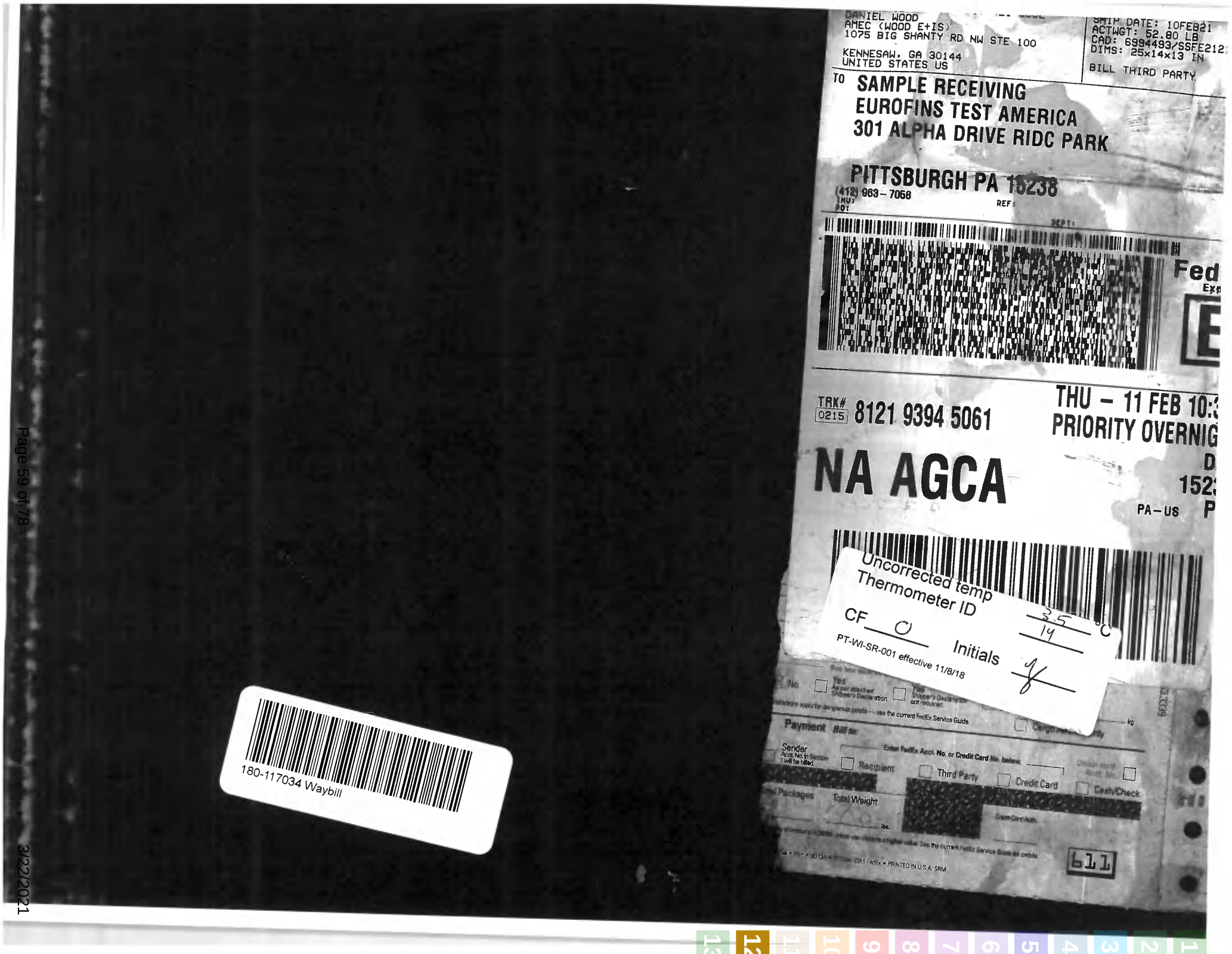
15238
PA-US **PIT**

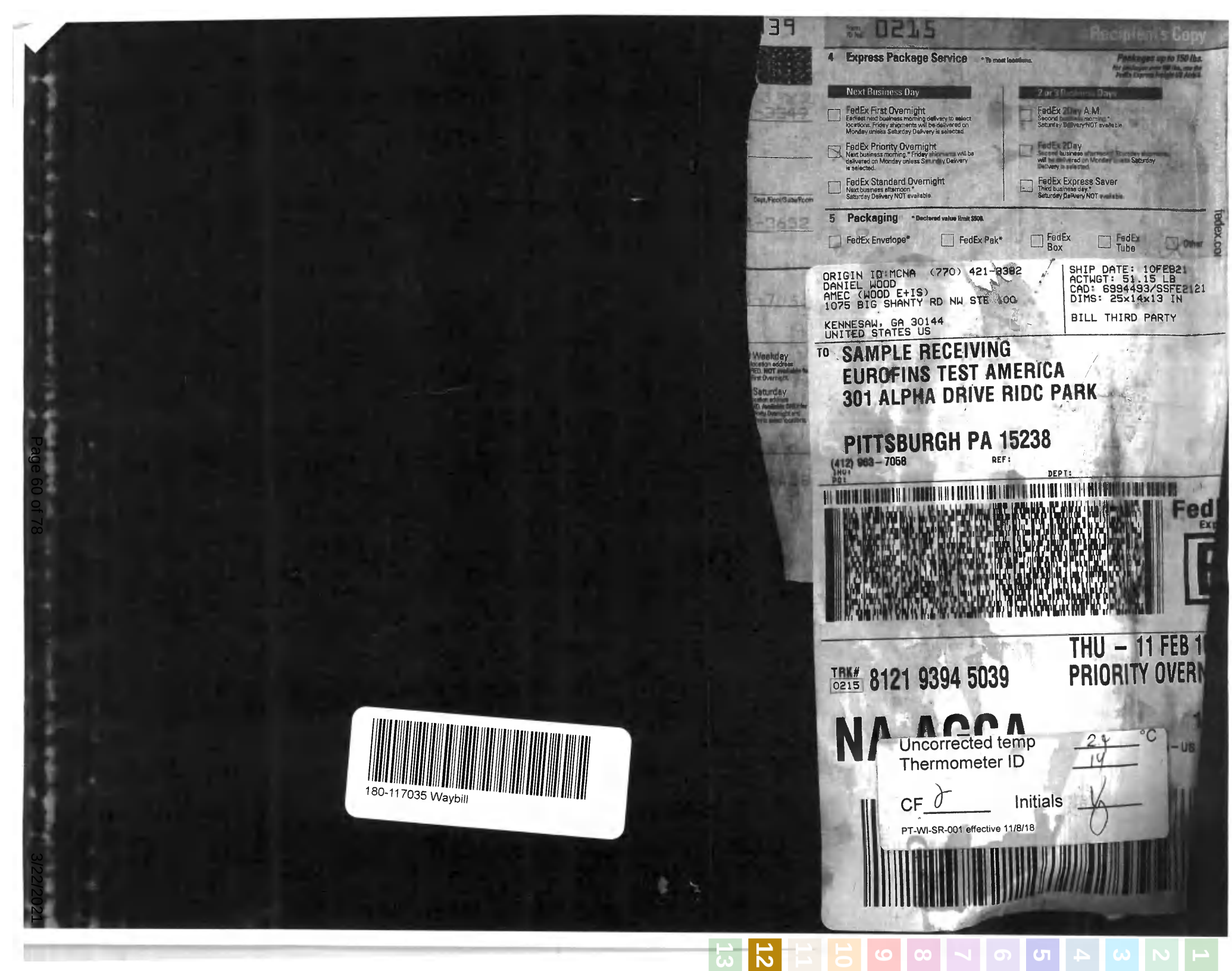
Uncorrected temp 35 °C
Thermometer ID 1M

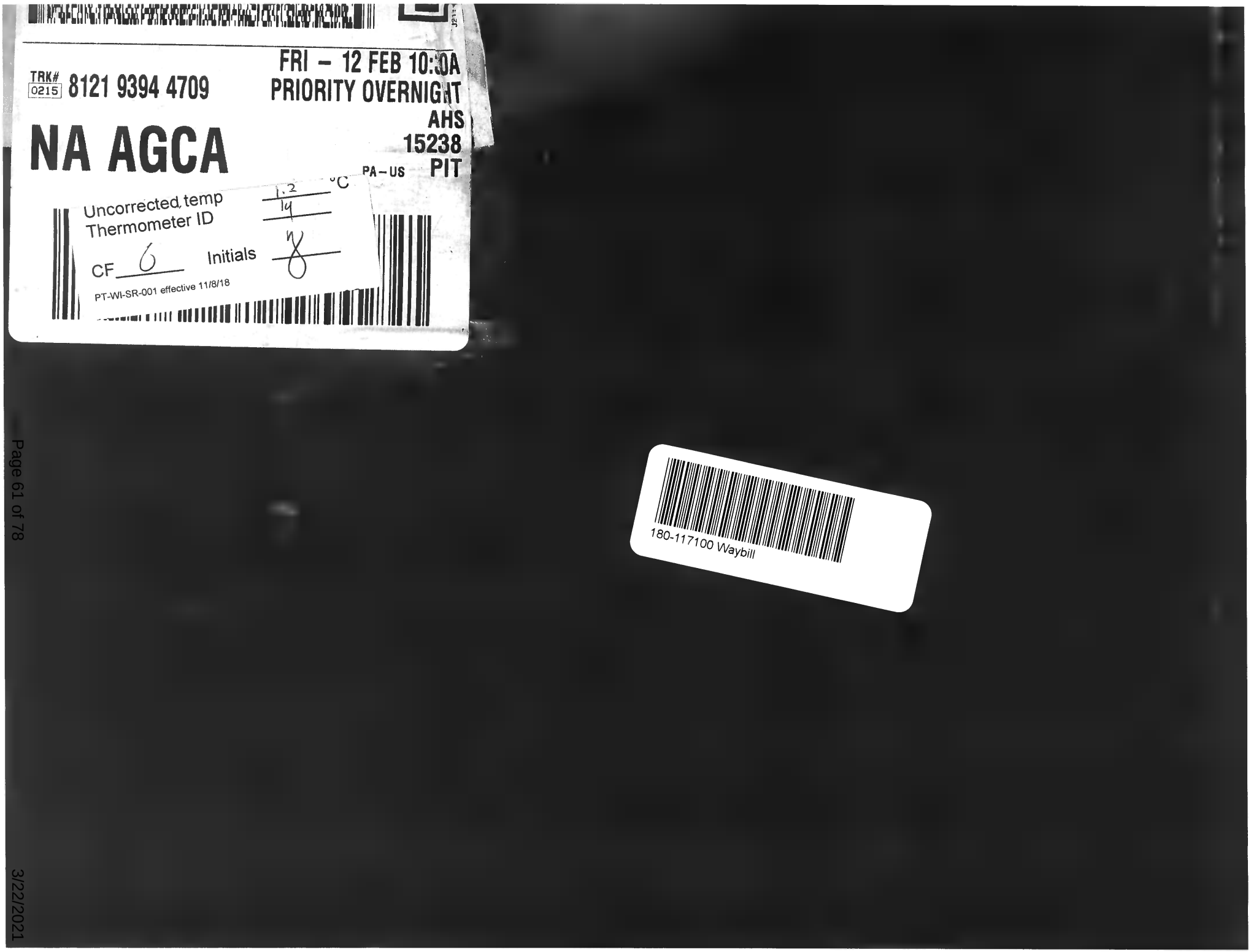
CF 0 Initials Y

PT-WI-SR-001 effective 11/8/18


FedEx Standard Overnight
FedEx Express Saver
5 Packaging
ORIGIN ID:MCNA (770) 421-3382
DANIEL WOOD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 10FEB21
ACTWGT: 53.55 LB
CAD: 6994493/SSFE2121
DIMS: 25x13x14 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DRIVE RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT:
FedEx Express
TRK# 0215 8121 9394 5050
THU - 11 FEB 10:30A
PRIORITY OVERNIGHT
DSR
15238
PIT
NA
Uncorrected temp
Thermometer ID
CF 2
Initials
PT-WI-SR-001 effective 11/8/18
°C PA-US
180-117033 Waybill
Part # 156291-XXXX REV XXX EXP 08/21


DANIEL WOOD
AMEC (WOOD E+IS)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 10FEB21
ACTWGT: 52.80 LB
CAD: 6994493/SSFE212
DIMS: 25x14x13 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DRIVE RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF:
DEPT:
TRK# 0215 8121 9394 5061
THU - 11 FEB 10:
PRIORITY OVERNIG
NA AGCA
PA-US
Uncorrected temp
Thermometer ID
3.5 °C
CF 0
14
Initials
PT-WI-SR-001 effective 11/8/18
180-117034 Waybill
Payment
Sender
Recipient
Third Party
Credit Card
Cash/Check
Total Packages
Total Weight
611


0215
Recipient's Copy
4 Express Package Service
Next Business Day
FedEx First Overnight
FedEx Priority Overnight
FedEx Standard Overnight
2 or 3 Business Days
FedEx 2Day A.M.
FedEx 2Day
FedEx Express Saver
5 Packaging
FedEx Envelope*
FedEx Pak*
FedEx Box
FedEx Tube
Other
fedex.com
ORIGIN ID:MCNA (770) 421-3382
DANIEL WOOD
AMEC (WOOD E+I$)
1075 BIG SHANTY RD NW STE 100
KENNESAW, GA 30144
UNITED STATES US
SHIP DATE: 10FEB21
ACTWGT: 51.15 LB
CAD: 6994493/SSFE2121
DIMS: 25x14x13 IN
BILL THIRD PARTY
TO SAMPLE RECEIVING
EUROFINS TEST AMERICA
301 ALPHA DRIVE RIDC PARK
PITTSBURGH PA 15238
(412) 963-7068
REF:
DEPT:
TRK# 0215 8121 9394 5039
THU - 11 FEB 1
PRIORITY OVERN
NA ACCA
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 11/8/18
180-117035 Waybill
Page 60 of 78
3/22/2021


TRK# 0215 8121 9394 4709
FRI - 12 FEB 10:30A
PRIORITY OVERNIGHT
AHS
15238
PIT
NA AGCA
PA-US
Uncorrected temp 1.2 °C
Thermometer ID 14
CF 6 Initials
PT-WI-SR-001 effective 11/8/18
180-117100 Waybill

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-426119.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin: Georgia	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-116980-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/15/2021			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR - Plant Arkwright AP-3	Project #: 18020201			
Site: Arkwright	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium 228	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
ARGWA-13 (180-116980-1)	2/9/21	11:52 Eastern		Water			X	X	X	2	
FB-1 (180-116980-2)	2/9/21	09:40 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2/11/21 1700	ETA Pitt	FedEx		
Relinquished by: FedEx	Date/Time:	Company	Received by: Sierra Wolfgram	Date/Time: 02/12/21 0910	Company GTASTL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116980
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116980
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/12/21 02:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116983
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116983
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/12/21 12:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116987
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116987
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/12/21 12:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116988
List Number: 1
Creator: Jodis, Matthew V

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 116988
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/12/21 12:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117033
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117033
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/12/21 02:10 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117034
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117034
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/13/21 12:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117035
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117035
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/13/21 12:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117100
List Number: 1
Creator: Abernathy, Eric

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-116980-2

Login Number: 117100
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins TestAmerica, St. Louis
List Creation: 02/22/21 12:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Georgia Power Site Sampling Data (GW)

Site Name: Plant Arkwright AP3

Date/Date Range: 2/9/21 - 2/11/21

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
FB-1	2/9/21	0940	FB-1			Field Blank For Ash Pond 3 samples
EB-1	2/10/21	0935		EB-1		EquipBlank of tubing used with peristaltic pump
ARAMW-3	2/10/21	0925				
ARGWA-3	2/9/21	1355				
ARGWA-3	2/11/21	1250				Resample for Diss Fe + Mn
ARAMW-4	2/10/21	1145				
ARGWA-5	2/9/21	1140				
ARGWA-5	2/11/21	1315				Resample fe- Diss Fe + Mn
ARAMW-6	2/9/21	1530				
ARGWC-7	2/10/21	1430				
ARGWC-8	2/10/21	1015				
ARGWC-9	2/10/21	1535				
ARGWC-9	2/11/21	1350				Resample for Diss Fe + Mn
ARGWC-10	2/9/21	1630				
ARGWA-12	2/9/21	1010				
ARGWA-13	2/9/21	1152				
ARGWA-14	2/9/21	1458				Well not dry on 2/9/21. Sampled on 2/11/21
ARGWC-15	2/9/21	1215				
ARGWC-16	2/9/21	1535				
ARGWC-16	2/11/21	1400				Resample fe- Diss Fe + Mn
ARGWC-17	2/9/21	1430				
ARGWC-18	2/10/21	1200				
ARGWC-18	2/11/21	1235				Resample for Diss Fe + Mn
ARGWA-24	2/9/21	1225				

Additional Comments: Field Blank FB-1 was taken using ASTM Type I deionized water (Brand ChemWorld) ASTM D5196. Field Blank for Ash Pond 3. Equip Blank EB-1 was collected from the HDPE tubing used with the peristaltic pump. Tubing Lot# THPE-1114-500. ASTM Type I water (ASTM D5196) Brand: Chem World. Diss Fe + Mn Equip Blank was collected using a 0.45um Filter. Brand: Single Sample (Lot: AMI 11-2420)

Georgia Power Site Sampling Data (GW)

Site Name: Plant Arkwright AP3

Date/Date Range: 2/9/21 - 2/11/21

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
DUP-1	2/9/21	—			ARGWA-24	Duplicate of ARGWA-24 (DUP-1)

Additional Comments:

PROJECT NAME: Plant Arkwright, GA - CCR GW

PLANT Arkwright FIELD SAMPLING REPORT

Project Number: 6122-20-1429.2001

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: _X_ 2021 1st Semmiannual Event; ___ OTHER

WELL ID / SAMPLE ID: FB-1 MATRIX: Groundwater

WELL MATERIAL: __ PVC __ SS __ OTHER

SAMPLE METHOD: Direct Fill

DUP./REP. OF: —

WELL DIAMETER: —

DEPTH TO WATER: —

TOTAL DEPTH: —

GRAB (x) COMPOSITE ( )

Pump Intake Set at (btoc): —

or

Tubing Inlet Set at (btoc): —

WATER COLUMN HEIGHT: —

PURGE VOLUME: —

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L) for DO < 0.5 mg/L record only	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µS/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC)[1]
Initial:									

NOTES:

[1] Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow recharge and sample within 24 hrs.

Turbidity < 5 NTUs Collected Field Blank FB-1 of ASTM Type I water (Deionized water - Brand Chem World) ASTM D5196. Field Blank For AR3

SAMPLE DATE: 2/9/21

SAMPLE TIME: 0940

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS	pH check
250 mL poly	1	HNO3 to pH <2	SW6020B/7470A	App III, IV Total Metals**** + Silver, Sb, Hg	<2
250 mL poly	1	HNO3 to pH <2, after field filtering	SW6020B/SW7470A*	Dissolved Metals - Iron, Manganese	<2
250 mL poly	1	Cool to 6°C	EPA 300.0 R2.1/EPA 9034	App III Anions**, Nitrate/Nitrite	
500 mL poly	1	Cool to 6°C	SM 2540C	Total Dissolved Solids (TDS)	
1L poly	2	HNO3 to pH <2	E9315/E9320	Radium 226 & 228 combined	<2
250 mL poly	1	Zn Acetate + NaOH; Cool to 4oC	USEPA 9034	Sulfide	
250 mL poly	1	Cool to 6°C	SM 2320B	Total Alkalinity	

GENERAL INFORMATION	
WEATHER:	Overcast, 1
SHIPPED VIA:	FED-X
SHIPPED TO:	~~PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel:~~ betsy.mcdaniel@pacelabs.com Eurofins Test America
SAMPLER: Daniel Howard	OBSERVER:

***** Total Metals - App III = Boron, Calcium, App IV = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium, Mercury (SW7470A)

** App. III Anions = Chloride, Fluoride, Sulfate

PROJECT NAME: Plant Arkwright, GA - CCR GW

PLANT Arkwright FIELD SAMPLING REPORT

Project Number: 6122-20-1429.2001

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3488

SAMPLING EVENT: X 2021 1st Semmiannual Event; ___ OTHER

WELL ID / SAMPLE ID: EB-1 MATRIX: Groundwater

WELL MATERIAL: __ PVC __ SS __ OTHER

SAMPLE METHOD: Peristaltic pump

DUP./REP. OF: —

Pump Intake Set at (btoc): —

or

Tubing Inlet Set at (btoc): —

WELL DIAMETER: —

DEPTH TO WATER: —

TOTAL DEPTH: —

WATER COLUMN HEIGHT: —

PURGE VOLUME: —

GRAB (x) COMPOSITE ( )

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L) for DO < 0.5 mg/L record only	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC)[1]
Initial:								( )	

NOTES:

[1] Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs

AP-3 wells

Collected equip blank EB-1 of HDPE tubing used with peristaltic pump (TAPE-714-500) using ASTM Type I water (ASTM D5196)

SAMPLE DATE: 2/10/21

SAMPLE TIME: 0935

Deionized water, Brand ChemWorld

*Diss Fe+Mn was collected using 0.45 um filter Brand: Sigle Sample (Lot: AM311-14-20)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL poly	1	HNO3 to pH <2	SW6020B/SW7470A	App III, IV Total Metals**** + Silver, Sb, Hg
250 mL poly	1	HNO3 to pH <2, after field filtering	SW6020B	* Dissolved Metals - Iron, Manganese
250 mL poly	1	Cool to 6°C	EPA 300.0 R2.1/EPA 9034	App III Anions**, Nitrate/Nitrite
500 mL poly	1	Cool to 6°C	SM 2540C	Total Dissolved Solids (TDS)
1L poly	2	HNO3 to pH <2	E9315/E9320	Radium 226 & 228 combined
250 mL poly	1	Zn Acetate + NaOH; Cool to 4oC	USEPA 9034	Sulfide
250 mL poly	1	Cool to 6°C	SM 2320B	Total Alkalinity

GENERAL INFORMATION	
WEATHER:	Sunny, Temp 60°F
SHIPPED VIA:	FED-X
SHIPPED TO:	~~PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com~~ - EuroFins Test America
SAMPLER: Daniel Howard	OBSERVER:

**** Total Metals - App III = Boron, Calcium, App IV = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium, Mercury (SW7470A)

** App. III Anions = Chloride, Fluoride, Sulfate

Product Name: Low-Flow System

Date: 2021-02-10 09:24:37

Project Information:		Pump Information:	
Operator Name	Terrell Parker	Pump Model/Type	Peristaltic
Company Name	Wood E&IS	Tubing Type	PE
Project Name	Plant Arkwright CCR	Tubing Diameter	.190 in
Site Name	ARAMW3	Tubing Length	67 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100 Q S/N 15030C039370	Pump placement from TOC	62 ft

Well Information:		Pumping Information:	
Well ID	ARAMW3	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.463553 L
Well Total Depth	67.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.48 in
Depth to Water	24.55 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:01:49	600.03	18.05	6.16	322.42	1.77	24.83	0.27	45.03
Last 5	09:06:49	900.02	18.16	6.16	321.82	1.45	24.84	0.24	31.23
Last 5	09:11:49	1200.02	18.23	6.16	324.27	1.70	24.84	0.24	29.65
Last 5	09:16:49	1500.02	18.48	6.15	322.46	1.71	24.84	0.24	31.41
Last 5	09:21:49	1800.02	18.70	6.15	321.57	1.80	24.84	0.21	36.04
Variance 0			0.07	-0.00	2.45			0.00	-1.57
Variance 1			0.24	-0.00	-1.81			-0.01	1.75
Variance 2			0.22	-0.00	-0.89			-0.02	4.63

Notes

Sample time: 09:25

Grab Samples

ARAMW3

Groundwater

Product Name: Low-Flow System

Date: 2021-02-10 11:42:39

Project Information:		Pump Information:	
Operator Name	Terrell Parker	Pump Model/Type	Peristaltic
Company Name	Wood E&IS	Tubing Type	PE
Project Name	Plant Arkwright CCR	Tubing Diameter	.170 in
Site Name	ARAMW4	Tubing Length	60.7 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100 Q S/N 15030C039370	Pump placement from TOC	52.7 ft

Well Information:		Pumping Information:	
Well ID	ARAMW4	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3609298 L
Well Total Depth	57.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.08 in
Depth to Water	21.40 ft	Total Volume Pumped	7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:19:25	600.18	18.70	5.64	1789.49	1.75	21.49	0.13	76.21
Last 5	11:24:25	900.18	18.79	5.62	1784.25	2.35	21.49	0.11	93.02
Last 5	11:29:25	1200.18	18.79	5.64	1771.55	1.81	21.49	0.11	85.04
Last 5	11:34:25	1500.18	18.83	5.65	1749.89	2.03	21.49	0.11	81.28
Last 5	11:39:25	1800.18	18.97	5.64	1737.64	2.14	21.49	0.10	87.72
Variance 0			-0.00	0.01	-12.71			-0.00	-7.98
Variance 1			0.04	0.02	-21.66			-0.00	-3.76
Variance 2			0.14	-0.01	-12.24			-0.00	6.44

Notes

Sample time: 11:45

Grab Samples

ARAMW4

Groundwater

Product Name: Low-Flow System

Date: 2021-02-09 15:24:05

Project Information:		Pump Information:	
Operator Name	Terrell Parker	Pump Model/Type	Dedicated bladder pump
Company Name	Wood E&IS	Tubing Type	PE
Project Name	Plant Arkwright CCR	Tubing Diameter	.190 in
Site Name	ARAMW6	Tubing Length	32 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100 Q S/N 15030C039370	Pump placement from TOC	27 ft

Well Information:		Pumping Information:	
Well ID	ARAMW6	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.2684134 L
Well Total Depth	32.33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.8 in
Depth to Water	12.88 ft	Total Volume Pumped	5.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	15:01:33	900.02	20.08	6.33	360.41	6.93	13.34	0.32	261.55
Last 5	15:06:33	1200.02	20.10	6.33	360.15	5.58	13.28	0.36	260.95
Last 5	15:11:33	1500.02	20.08	6.33	360.36	4.75	13.28	0.42	254.96
Last 5	15:16:33	1800.02	20.03	6.33	360.07	3.97	13.28	0.43	259.79
Last 5	15:21:33	2100.02	19.98	6.34	360.35	3.62	13.28	0.38	243.31
Variance 0			-0.02	0.00	0.20			0.07	-5.99
Variance 1			-0.05	-0.01	-0.29			0.00	4.83
Variance 2			-0.05	0.01	0.28			-0.05	-16.48

Notes : Sample time 15:30

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-09 13:56:20

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWA-3	Tubing Length	40.50 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	35.50 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-3	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6607687 L
Well Total Depth	40.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	34.67 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:30:45	600.02	19.08	5.94	87.80	3.94	34.72	5.71	42.43
Last 5	13:35:45	900.01	19.07	5.89	86.99	2.57	34.72	5.70	43.15
Last 5	13:40:45	1200.01	19.10	5.91	86.82	1.58	34.72	5.70	43.56
Last 5	13:45:45	1500.01	19.12	5.94	86.73	0.97	34.72	5.70	43.16
Last 5	13:50:45	1800.00	19.14	5.94	86.69	0.50	34.72	5.70	43.80
Variance 0			0.03	0.02	-0.17			-0.00	0.41
Variance 1			0.02	0.03	-0.09			0.00	-0.41
Variance 2			0.02	-0.00	-0.04			-0.00	0.64

Notes

Sample Time 1355

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-11 12:50:19

Project Information:		Pump Information:	
Operator Name	Terrell Parker	Pump Model/Type	Dedicated bladder pump
Company Name	Wood E&IS	Tubing Type	PE
Project Name	Plant Arkwright CCR	Tubing Diameter	.190 in
Site Name	ARGWA3	Tubing Length	63 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100 Q S/N 15030C039370	Pump placement from TOC	62 ft

Well Information:		Pumping Information:	
Well ID	ARGWA3	Final Pumping Rate	170 mL/min
Well diameter	2 in	Total System Volume	0.8312513 L
Well Total Depth	67.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.8 in
Depth to Water	34.63 ft	Total Volume Pumped	5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	12:28:16	300.08	18.88	5.99	85.65	4.98	34.78	6.59	228.81
Last 5	12:33:16	600.02	18.87	5.96	85.44	4.76	34.78	6.56	236.55
Last 5	12:38:16	900.02	18.85	5.95	85.49	4.82	34.78	6.56	234.91
Last 5	12:43:16	1200.03	18.83	5.95	85.41	4.98	34.78	6.54	235.20
Last 5	12:48:16	1500.02	18.84	5.94	85.15	4.77	34.78	6.53	236.17
Variance 0			-0.02	-0.01	0.05			-0.00	-1.64
Variance 1			-0.02	-0.00	-0.08			-0.02	0.29
Variance 2			0.00	-0.01	-0.25			-0.01	0.97

Notes

Sample time for dissolved Fe and Mn only: 12:50

Grab Samples

ARGWA3

Groundwater for dissolved Fe and Mn only

Product Name: Low-Flow System

Date: 2021-02-09 11:39:26

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWA-5	Tubing Length	30 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hatch 2100Q	Pump placement from TOC	25 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6139027 L
Well Total Depth	30 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	22.85 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:12:04	1200.01	18.19	5.86	89.84	2.49	23.96	5.38	46.73
Last 5	11:17:05	1501.01	18.42	5.86	89.73	2.08	23.96	5.13	47.31
Last 5	11:22:05	1801.00	18.32	5.87	89.40	1.19	23.96	5.02	47.80
Last 5	11:32:05	2400.99	18.50	5.87	89.14	0.89	23.96	4.98	46.98
Last 5	11:37:05	2700.99	18.54	5.88	89.18	0.76	23.96	4.97	47.08
Variance 0			-0.10	0.01	-0.32			-0.11	0.49
Variance 1			0.18	0.00	-0.27			-0.04	-0.82
Variance 2			0.04	0.00	0.05			-0.01	0.10

Notes

Sample time =1140

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-11 13:25:48

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED (Dedicated)
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWA-5	Tubing Length	35 ft
Latitude	32° 55' 21.17"		
Longitude	-83° -42' -21.38"		
Sonde SN	647057		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	25 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-5	Final Pumping Rate	210 mL/min
Well diameter	2.00 in	Total System Volume	0.6362198 L
Well Total Depth	30 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	22.80 ft	Total Volume Pumped	3.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	12:47:48	300.03	17.42	6.28	93.47	1.83	22.83	7.51	148.22
Last 5	12:52:48	600.02	17.63	5.98	77.22	1.27	22.86	6.65	138.21
Last 5	12:57:48	900.02	17.72	5.93	91.62	0.57	22.86	6.39	133.66
Last 5	13:02:48	1200.01	17.74	5.89	90.68	0.61	22.86	6.21	130.56
Last 5	13:07:48	1500.00	17.80	5.87	90.14	0.44	22.86	5.94	127.22
Variance 0			0.09	-0.05	14.40			-0.26	-4.55
Variance 1			0.03	-0.04	-0.94			-0.18	-3.10
Variance 2			0.05	-0.02	-0.54			-0.27	-3.34

Notes

Start purging well @ 12:44, stop @ 13:07; Initial purge rate of 150 ml/min increased to 210 ml/min @ 12:53; Sample collected @ 13:15; Only dissolved metals (Mn & Fe) sample taken; Weather cloudy with light rain 17 degrees C

Grab Samples

ARGWA-5

Groundwater sample

Product Name: Low-Flow System

Date: 2021-02-09 10:04:08

Project Information:		Pump Information:	
Operator Name	Terrell Parker	Pump Model/Type	Dedicated bladder pump
Company Name	Wood E&IS	Tubing Type	PE
Project Name	Plant Arkwright CCR	Tubing Diameter	.190 in
Site Name	ARGWA12	Tubing Length	25.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100 Q S/N 15030C039370	Pump placement from TOC	28.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWA12	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6205006 L
Well Total Depth	35.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	14.27 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	09:41:51	300.08	17.76	5.93	214.75	1.59	15.47	3.10	213.27
Last 5	09:46:51	600.02	17.73	5.93	213.70	1.01	15.47	3.09	213.97
Last 5	09:51:51	900.02	17.66	5.92	213.73	0.99	15.47	3.08	219.71
Last 5	09:56:51	1200.02	17.77	5.92	213.44	1.05	15.47	3.08	209.79
Last 5	10:01:51	1500.02	17.76	5.92	213.24	0.74	15.47	3.07	206.26
Variance 0			-0.08	-0.00	0.03			-0.01	5.73
Variance 1			0.11	-0.00	-0.29			-0.00	-9.92
Variance 2			-0.01	-0.00	-0.20			-0.01	-3.54

Notes

Sample time: 10:10

Grab Samples

ARGWA12

Groundwater

Product Name: Low-Flow System

Date: 2021-02-09 11:55:47

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micropurge
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright CCR AP3	Tubing Diameter	.25 in
Site Name	ARGWA-13	Tubing Length	43.3 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	642531		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.3 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-13	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8979633 L
Well Total Depth	43.31 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	23.73 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:30:26	600.02	17.09	5.81	1120.49	1.15	24.15	3.79	173.10
Last 5	11:35:26	900.02	17.12	5.80	1126.67	0.92	24.15	3.33	164.53
Last 5	11:40:26	1200.02	17.12	5.79	1125.72	0.62	24.15	2.11	161.45
Last 5	11:45:26	1500.02	17.14	5.79	1115.78	0.49	24.15	2.13	158.92
Last 5	11:50:26	1800.02	17.10	5.79	1107.65	0.30	24.15	2.04	157.98
Variance 0			0.00	-0.01	-0.95			-1.22	-3.07
Variance 1			0.02	0.00	-9.94			0.02	-2.53
Variance 2			-0.04	-0.00	-8.14			-0.09	-0.94

Notes

ARGWA-13 sample time 1152.

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-09 11:07:58

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED (Dedicated)
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWA-14	Tubing Length	60 ft
Latitude	32° 55' 4.24"		
Longitude	-83° -41' -59.16"		
Sonde SN	647057		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	53.45 ft

Well Information:		Pumping Information:	
Well ID	ARGWA-14	Final Pumping Rate	80 mL/min
Well diameter	2.00 in	Total System Volume	0.7478054 L
Well Total Depth	58.45 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft		
		Stabilization Drawdown	105 in
Depth to Water	44.71 ft	Total Volume Pumped	4.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	10:37:37	2399.98	16.00	6.63	342.38	0.47	48.58	6.09	70.56
Last 5	10:42:37	2699.97	16.11	6.60	322.68	0.84	48.91	6.08	71.09
Last 5	10:47:37	2999.97	16.14	6.62	332.50	0.89	49.32	6.07	70.26
Last 5	10:52:37	3299.96	16.09	6.65	376.92	0.83	49.64	6.06	69.56
Last 5	10:57:37	3599.95	16.13	6.67	403.11	0.71	49.64	6.14	69.25
Variance 0			0.03	0.01	9.82			-0.01	-0.83
Variance 1			-0.05	0.04	44.42			-0.01	-0.71
Variance 2			0.04	0.02	26.19			0.09	-0.31

Notes

First purge attempt; Water level dropped below top of screen; Not sufficient volume of water to fill bottle set

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-09 12:21:28

Project Information:		Pump Information:	
Operator Name	Terrell Parker	Pump Model/Type	Dedicated bladder pump
Company Name	Wood E&IS	Tubing Type	PE
Project Name	Plant Arkwright CCR	Tubing Diameter	.190 in
Site Name	ARGWA24	Tubing Length	30.5 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100 Q S/N 15030C039370	Pump placement from TOC	24.16 ft

Well Information:		Pumping Information:	
Well ID	ARGWA24	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2600502 L
Well Total Depth	28.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.32 in
Depth to Water	20.04 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:56:50	900.02	18.76	5.69	160.97	0.93	20.15	2.16	222.29
Last 5	12:01:50	1200.02	18.76	5.67	161.40	1.05	20.14	2.19	218.89
Last 5	12:06:50	1500.02	18.72	5.73	160.78	1.06	20.15	2.16	211.93
Last 5	12:11:50	1800.02	18.66	5.68	161.56	0.74	20.15	2.18	207.90
Last 5	12:16:50	2100.02	18.57	5.69	161.33	0.81	20.15	2.17	196.62
Variance 0			-0.04	0.05	-0.62			-0.02	-6.96
Variance 1			-0.06	-0.05	0.78			0.01	-4.03
Variance 2			-0.09	0.01	-0.22			-0.01	-11.29

Notes

Sample time: 12:25

Grab Samples

ARGWA-24

Groundwater

Product Name: Low-Flow System

Date: 2021-02-10 14:26:17

Project Information:		Pump Information:	
Operator Name	Terrell Parker	Pump Model/Type	Dedicated bladder pump
Company Name	Wood E&IS	Tubing Type	PE
Project Name	Plant Arkwright CCR	Tubing Diameter	.190 in
Site Name	ARGWC7	Tubing Length	50.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	512733		
Turbidity Make/Model	Hach 2100 Q S/N 15030C039370	Pump placement from TOC	45.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWC7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.759886 L
Well Total Depth	50.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.68 in
Depth to Water	22.73 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	14:05:01	600.02	18.93	5.77	156.10	0.23	22.87	4.61	283.52
Last 5	14:10:01	900.02	18.95	5.78	156.20	0.17	22.87	4.63	296.37
Last 5	14:15:01	1200.02	18.99	5.77	156.08	0.16	22.87	4.63	300.55
Last 5	14:20:01	1500.02	18.97	5.77	156.11	0.14	22.87	4.64	303.51
Last 5	14:25:01	1800.02	18.99	5.77	155.88	0.19	22.87	4.64	310.90
Variance 0			0.04	-0.01	-0.12			-0.00	4.17
Variance 1			-0.02	-0.00	0.03			0.01	2.96
Variance 2			0.02	0.00	-0.23			0.00	7.39

Notes

Sample time: 14:30

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-10 10:44:55

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED (Dedicated)
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-8	Tubing Length	45 ft
Latitude	32° 55' 30.88"		
Longitude	-83° -42' -29.75"		
Sonde SN	647057		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.22 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-8	Final Pumping Rate	170 mL/min
Well diameter	2.00 in	Total System Volume	0.680854 L
Well Total Depth	43.22 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.4 in
Depth to Water	25.13 ft	Total Volume Pumped	4.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	09:45:43	600.02	18.29	6.49	444.86	2.47	25.23	0.91	59.40
Last 5	09:50:43	900.01	18.50	6.47	440.09	3.70	25.25	0.69	60.31
Last 5	09:55:43	1200.01	18.76	6.47	440.21	3.67	25.25	0.76	57.79
Last 5	10:00:43	1500.00	18.59	6.47	440.46	3.66	25.25	0.44	51.39
Last 5	10:05:43	1799.99	18.50	6.45	439.40	2.91	25.25	0.28	45.46
Variance 0			0.25	-0.00	0.12			0.07	-2.52
Variance 1			-0.17	-0.00	0.25			-0.31	-6.40
Variance 2			-0.08	-0.01	-1.06			-0.16	-5.93

Notes

Start purging well @ 09:38, stop @ 10:05; Purge rate held constant @ 170 ml/min; Collect sample @ 10:15; Weather is partly cloudy 16 degrees C

Grab Samples

ARGWC-8

Groundwater sample

Product Name: Low-Flow System

Date: 2021-02-10 15:30:15

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-9	Tubing Length	38.2 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	33.2 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6505027 L
Well Total Depth	38.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	19.82 ft	Total Volume Pumped	11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:08:00	2400.00	20.26	5.88	77.19	6.22	20.10	5.59	62.76
Last 5	15:13:00	2699.99	20.22	5.92	77.25	5.62	20.10	5.58	59.22
Last 5	15:18:00	2999.99	20.23	5.83	77.25	4.31	20.10	5.57	60.60
Last 5	15:23:00	3299.98	20.27	5.91	77.11	3.62	20.10	5.56	58.31
Last 5	15:28:00	3599.98	20.27	5.91	77.19	2.08	20.10	5.56	57.76
Variance 0			0.01	-0.09	-0.00			-0.01	1.38
Variance 1			0.04	0.08	-0.14			-0.01	-2.29
Variance 2			-0.00	0.01	0.08			0.00	-0.54

Notes

Sample Time 1535

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-09 16:43:04

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED (Dedicated)
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-10	Tubing Length	40 ft
Latitude	32° 56' 5.32"		
Longitude	-83° -42' -41.24"		
Sonde SN	647057		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	33.35 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-10	Final Pumping Rate	230 mL/min
Well diameter	2.00 in	Total System Volume	0.6585369 L
Well Total Depth	38.35 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.4 in
Depth to Water	20.47 ft	Total Volume Pumped	15.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	16:05:32	2999.97	18.08	5.95	106.93	5.89	20.59	4.23	80.48
Last 5	16:10:32	3299.97	18.06	5.92	106.62	5.20	20.59	4.22	81.51
Last 5	16:15:32	3599.96	18.06	5.94	106.25	3.66	20.59	4.18	80.00
Last 5	16:20:39	3906.95	18.05	5.94	106.06	3.64	20.59	4.14	79.73
Last 5	16:25:39	4206.94	18.02	5.94	105.84	3.17	20.59	4.16	79.30
Variance 0			-0.00	0.01	-0.37			-0.03	-1.51
Variance 1			-0.01	-0.00	-0.19			-0.04	-0.27
Variance 2			-0.03	0.00	-0.22			0.02	-0.43

Notes

Start purging well @ 15:16, stop @ 16:25; Purge rate held constant between 220 & 230 ml/min; Collect sample @ 16:30; Weather is cloudy 17

Grab Samples

ARGWC-10

Groundwater sample

Product Name: Low-Flow System

Date: 2021-02-11 13:49:38

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-9	Tubing Length	34.52 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.52 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6340774 L
Well Total Depth	34.52 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	19.82 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:25:44	600.02	20.46	6.00	74.48	1.79	20.00	6.40	55.21
Last 5	13:30:44	900.02	20.46	5.98	74.87	1.63	20.00	6.36	56.04
Last 5	13:35:44	1200.01	20.46	5.98	75.00	1.57	20.00	6.38	56.60
Last 5	13:40:44	1500.01	20.46	5.95	74.97	2.47	20.00	6.36	56.87
Last 5	13:45:44	1800.01	20.41	5.95	75.04	1.03	20.00	6.36	54.62
Variance 0			0.00	-0.01	0.14			0.01	0.57
Variance 1			0.00	-0.02	-0.03			-0.01	0.27
Variance 2			-0.05	-0.01	0.07			-0.00	-2.25

Notes: Resample Diss
Fe and Mn
Sample Time 1350

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-09 12:29:43

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED (Dedicated)
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-15	Tubing Length	45 ft
Latitude	32° 54' 55.13"		
Longitude	-83° -42' -31.31"		
Sonde SN	647057		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-15	Final Pumping Rate	90 mL/min
Well diameter	2.00 in	Total System Volume	0.680854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	32 in
Depth to Water	28.90 ft	Total Volume Pumped	2.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	11:47:05	300.03	17.25	6.82	254.56	2.01	30.14	3.52	98.64
Last 5	11:52:05	600.02	17.03	6.57	237.03	1.80	30.57	2.54	72.09
Last 5	11:57:05	900.01	17.22	6.45	229.54	1.62	30.94	2.98	71.21
Last 5	12:02:05	1200.01	17.30	6.45	230.54	1.45	31.27	3.01	69.34
Last 5	12:07:05	1500.00	17.34	6.43	230.38	1.74	31.56	2.99	68.76
Variance 0			0.19	-0.12	-7.49			0.44	-0.88
Variance 1			0.08	0.00	1.00			0.03	-1.87
Variance 2			0.04	-0.02	-0.15			-0.02	-0.58

Notes

Start purging well @ 11:43, stop @ 12:07; Purge rate kept consistent @ 90 ml/min; Collect sample @ 12:15; Weather is overcast 15 degrees C

Grab Samples

ARGWC-15

Groundwater sample

Product Name: Low-Flow System

Date: 2021-02-09 15:31:59

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-16	Tubing Length	34.52 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.52 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-16	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6340774 L
Well Total Depth	34.52 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	20.17 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:09:06	900.02	19.79	5.26	489.15	0.60	20.27	0.41	72.99
Last 5	15:14:06	1200.01	19.78	5.26	489.35	0.51	20.27	0.40	73.23
Last 5	15:19:06	1500.01	19.76	5.26	489.54	0.74	20.27	0.40	73.58
Last 5	15:24:06	1800.00	19.70	5.25	490.02	0.65	20.27	0.39	73.91
Last 5	15:29:06	2100.00	19.70	5.24	488.93	0.47	20.27	0.39	75.56
Variance 0			-0.01	-0.00	0.18			-0.00	0.35
Variance 1			-0.06	-0.01	0.48			-0.00	0.33
Variance 2			-0.00	-0.01	-1.09			0.00	1.65

Notes

Sample Time 1535

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-11 14:02:32

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micropurge
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Arkwright CCR AP3	Tubing Diameter	.25 in
Site Name	ARGWC-16	Tubing Length	34.5 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	642531		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.5 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-16	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8130193 L
Well Total Depth	34.52 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	20.14 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:37:34	900.03	19.50	5.26	490.05	0.59	20.15	0.84	119.50
Last 5	13:42:34	1200.03	19.46	5.25	490.19	0.39	20.15	0.76	119.34
Last 5	13:47:34	1500.02	19.41	5.25	490.20	0.28	20.15	0.67	118.63
Last 5	13:52:34	1800.02	19.37	5.24	490.23	0.49	20.15	0.63	118.06
Last 5	13:57:34	2100.02	19.34	5.23	489.93	0.22	20.15	0.60	117.51
Variance 0			-0.04	-0.01	0.01			-0.09	-0.71
Variance 1			-0.04	-0.01	0.02			-0.04	-0.57
Variance 2			-0.03	-0.00	-0.30			-0.03	-0.56

Notes

ARGWC-16 sample time 1400. Resample Dissolved Fe & Mn.

Grab Samples

Product Name: Low-Flow System

Date: 2021-02-09 14:38:50

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	QED (Dedicated)
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-17	Tubing Length	38 ft
Latitude	32° 54' 55.13"		
Longitude	-83° -42' -31.31"		
Sonde SN	647057		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.5 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-17	Final Pumping Rate	235 mL/min
Well diameter	2.00 in	Total System Volume	0.6496101 L
Well Total Depth	34.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	7 in
Depth to Water	21.65 ft	Total Volume Pumped	7.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 50
Last 5	14:02:48	600.02	18.08	5.37	236.64	9.52	22.23	0.92	128.67
Last 5	14:07:48	900.01	18.15	5.24	204.26	6.91	22.23	0.67	110.42
Last 5	14:12:48	1200.01	18.19	5.19	195.58	4.57	22.24	0.48	95.62
Last 5	14:17:48	1500.00	18.28	5.18	194.60	3.70	22.22	0.38	82.83
Last 5	14:22:48	1799.99	18.35	5.17	194.69	3.19	22.22	0.30	74.36
Variance 0			0.05	-0.05	-8.68			-0.18	-14.81
Variance 1			0.09	-0.01	-0.98			-0.10	-12.79
Variance 2			0.08	-0.01	0.09			-0.09	-8.47

Notes

Start purging well @ 13:54, stop @ 14:22; Purge rate maintained @ 235 ml/min; Collect sample @ 14:30; Weather is cloudy 16 degrees C

Grab Samples

ARGWC-17

Groundwater sample

Product Name: Low-Flow System

Date: 2021-02-10 11:58:50

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood	Tubing Type	HDPE
Project Name	Plant Arkwright	Tubing Diameter	0.17 in
Site Name	ARGWC-18	Tubing Length	50.65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	541714		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	45.65 ft

Well Information:		Pumping Information:	
Well ID	ARGWC-18	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.7060724 L
Well Total Depth	50.65 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	28.05 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:31:16	6599.94	19.56	5.98	618.06	5.66	28.22	0.27	79.77
Last 5	11:36:16	6899.93	19.57	5.99	620.01	5.12	28.22	0.27	79.54
Last 5	11:41:21	7204.93	20.10	5.98	619.08	5.28	28.22	0.28	79.58
Last 5	11:46:21	7504.93	19.25	5.99	618.34	5.06	28.22	0.26	80.01
Last 5	11:56:21	8104.92	19.33	5.99	619.59	4.81	28.22	0.25	79.84
Variance 0			0.54	-0.00	-0.94			0.01	0.04
Variance 1			-0.85	0.00	-0.74			-0.01	0.43
Variance 2			0.07	-0.00	1.25			-0.01	-0.17

Notes

Sample Time 1200

Grab Samples

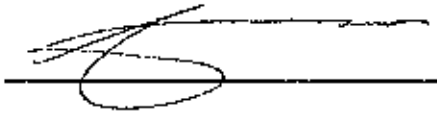
Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number: -
Well ID: ARKMW-3
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

-

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

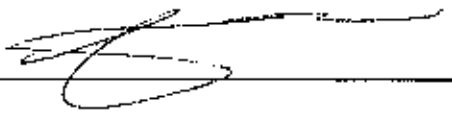
Site Name: Plant ARKWRIGHT
Permit Number: -
Well ID: ARAMW-4
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

-

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

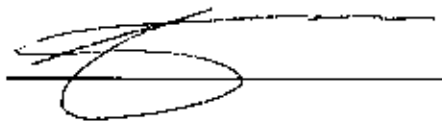
Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARAMW-6
Date: 02/08/2021

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

—

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARKWA-3
Date: 2-8-2021 13:40

		yes	no	n/a	
1	Location/Identification				
a	Is the well visible and accessible?	✓			
b	Is the well properly identified with the correct well ID?	✓			
c	Is the well in a high traffic area and does the well require protection from traffic?		✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓			
2	Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓			
b	Is the casing free of degradation or deterioration?	✓			
c	Does the casing have a functioning weep hole?	✓			
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓			
e	Is the well locked and is the lock in good condition?	✓			
3	Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	2-8-21	✓		crack in pad
b	Is the well pad sloped away from the protective casing?	✓			
c	Is the well pad in complete contact with the protective casing?	✓			
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓			
e	Is the pad surface clean (not covered with sediment or debris)?	✓			
4	Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓			
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓			
c	Is the well properly vented for equilibration of air pressure?	✓			
d	Is the survey point clearly marked on the inner casing?	✓			
e	Is the depth of the well consistent with the original well log?	✓		N/A	
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓			
5	Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?			N/A	
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		N/A	
c	Does the well require redevelopment (low flow, turbid)?		✓	N/A	
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓			

7 Corrective actions as needed, by date:
Fill crack on SW side of pad. by 3/2021

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGW4-5
Date: 2-4-2021 13:25

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?	✓		N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		N/A
c	Does the well require redevelopment (low flow, turbid)?		✓	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

(1) protective casing under outer PVC cover to label "ARGW-5" Remove old label.

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARGWC-7
Date: 02/08/2021

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?		✓	
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:
Repair bollards: SW bollard is lying down, NE & SE bollards are unsecured

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

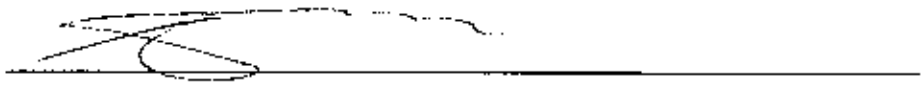
Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARGWC-8
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

SE & SW bollards are insecure
Drainage erosion forming west of well pad.

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

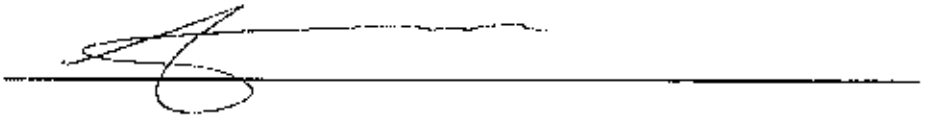
Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARGWC-9
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

—

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number: –
Well ID: ARGWC-10
Date: 02/08/2021

		yes	no	n/a
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	**Surface pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling: Groundwater Wells Only:**			
a	Does well recharge adequately when purged?	✓		N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:
Northern bollard unsecure

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARK-MW-12
Date: 2-8-2021 13:09

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		N/A
c	Does the well require redevelopment (low flow, turbid)?		✓	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

None.

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGWA-13
Date: 2-8-2021 14:25

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		N/A
c	Does the well require redevelopment (low flow, turbid)?		✓	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

None.

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARGW-14
Date: 2-8-2021 14:20

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		N/A
c	Does the well require redevelopment (low flow, turbid)?		✓	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

None.

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

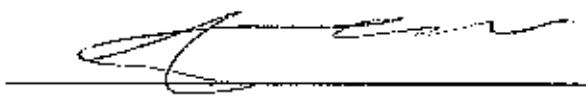
Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARGWC-16
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)			
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?	✓		N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

—

Signature and Seal of PE/PG responsible for inspection



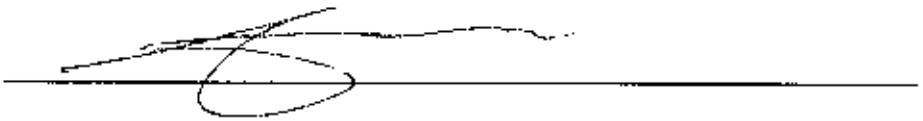
Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARKWC-1b
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?		✓	
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:
Replace lock on casing.

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARGWC-17
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage/flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

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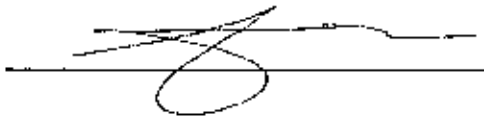
Signature and Seal of PE/PG responsible for inspection



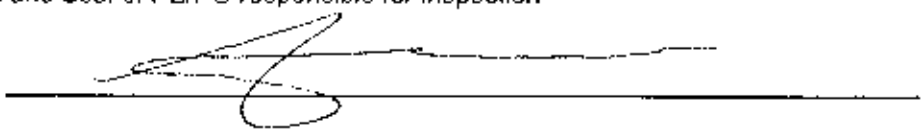
Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number: —
Well ID: ARAWC-18
Date: 02/08/2021

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?	✓		
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?			N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			N/A
c	Does the well require redevelopment (low flow, turbid)?			N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		
7	Corrective actions as needed, by date:			

—

Signature and Seal of PE/PG responsible for inspection



Groundwater Monitoring Well Integrity Form

Site Name: Plant ARKWRIGHT
Permit Number:
Well ID: ARKWR-24
Date: 12-8-2021 13:19

		yes	no	n/a
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area and does the well require protection from traffic?		✓	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked and is the lock in good condition?	✓		
3	Surface pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?			N/A
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	✓		N/A
c	Does the well require redevelopment (low flow, turbid)?		✓	N/A
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	✓		

7 Corrective actions as needed, by date:

None.

Signature and Seal of PE/PG responsible for inspection

Date: 2-11-2021
Time: 06:32
Prepared By: Israel Parker
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: 522733
Pine Handset ID: Aircraft 90
Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes____ No____ Date:____ Time:____	N/A
Current Air Temperature °C (meter reading):		21.31
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		752.7
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	N/A
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		8.77
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.83
DO concentration after Calibration (mg/L):		8.75
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	99.8
DO Charge (DO ch):	Acceptable Range is 25 to 75	N/A
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	N/A

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 19410255 Exp. Not prov.	1.413
Temperature (°C)		21.5
Reading before Calibration (mS/cm)		1.418
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		N/A

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # 1934655 Exp. 08/2021	—
pH 7.0 value after calibration:		
pH 7.0 mV (range is -50 to +50 mV):	22.0°C	-11.9
pH 10 value before calibration:	Lot # 19328102 Exp. 08/2021	—
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-184.9
pH 4.0 value before calibration:	LOT#20010625 Exp. 08/2021	4.02
pH 4.0 value after calibration:		
pH 4.0 mV (range is 130 to 230 mV):		161.7

2-11-2021 @ 13:10 pH 7.00 Check = 7.06 ↓ 101% Recovery

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	LOT # 19460167 Exp. 08/2021	20.74
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 mV (T is Temperature °C)	N/A
Reading before calibration (mV):		221.7
Reading after calibration (mV):	ORP 5.0 = +228 mV per label.	228.2

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
20 NTU Turbidity Standard	No Lot #'s or Expiration Dates provided by Aire	Before Cal:	After Cal:	20.4
100 NTU Turbidity Standard		Before Cal:	After Cal:	97.7
800 NTU Turbidity Standard		Before Cal:	After Cal:	821
10 NTU Turbidity Check STD		Before Cal:	After Cal:	9.61
<0.1 NTU Turbidity Check STD	LOT A6094 Exp 3/2022	Before Cal:	After Cal:	0.22
CALIBRATION SUCCESSFUL?				Yes

10 NTU Cal Verification @ 13:15 2-11-2021 DP

Finish Time: 07:05

9.59. 96% Recovery.

Date: 2-10-2021
Time: 07:00
Prepared By: Russell Parker
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: 512733
Pine Handset ID: ARENTHL90
Battery Voltage %: 38% Handset.

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No ____ Date: ____ Time:	N/A
Current Air Temperature °C (meter reading):		21.46
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		755.4
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	N/A
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.19
DO concentration after Calibration (mg/L):		8.75 @ 21.59
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	8.76 100%R ✓
DO Charge (DO ch):	Acceptable Range is 25 to 75	N/A
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	N/A

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 19410200 Exp. (not per.)	1.413
Temperature (°C)		21.41
Reading before Calibration (mS/cm)		1.495
Reading AFTER Calibration (mS/cm)		1.412 ✓
Conductivity Cell Constant (unitless):		N/A

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # 19340057 Exp. 08/2021	—
pH 7.0 value after calibration:		—
pH 7.0 mV (**range is -50 to +50 mV**):	22°C	-12.2
pH 10 value before calibration:	Lot # 19320102 Exp. 08/2021	—
pH 10 value after calibration:		10.01 ✓
pH 10 mV (**range is -130 to -230 mV**):		-183.5
pH 4.0 value before calibration:	Lot # 20010025 Exp. 08/2021	4.03
pH 4.0 value after calibration:		
pH 4.0 mV (**range is 130 to 230 mV**):	22°C	166.8

MIDDAY pH CAL CHECK @ 7.00 = 7.07 @ 15:10 2-16-21 ✓ Pass 101% Rec.

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot # 19460167 Exp. 08/2021	20.9
Theoretical Calibration standard (mV)	0.231-0.0013(25-T) x 1000 = mV (T is Temperature °C)	N/A
Reading before calibration (mV):		228.5
Reading after calibration (mV):	ORP Standard = +228 mV per label	228.2 ✓

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY **Note: Lens wiper should be parked 180 degrees from the optics.**			
20 NTU Turbidity Standard	Before Cal:	After Cal:	19.6 ✓
100 NTU Turbidity Standard	Before Cal:	After Cal:	101 ✓
800 NTU Turbidity Standard	Before Cal:	After Cal:	791 ✓
10 NTU Turbidity Check STD	Before Cal:	After Cal:	9.74 ✓
0.1 NTU Turbidity Check STD Appr. D.I. o.l.	Before Cal:	After Cal:	0.30
CALIBRATION SUCCESSFUL? Lot # 0199 Exp. 07/2022			Yes

10 NTU Cal Verification @ 15:04 ✓ 9.45 = 94.5% Rec

Date: 2-9-2021
Time: 07:13 - 07:45
Prepared By: Terrell Parker
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: 512733
Pine Handset ID: AIRENTAL 90
Battery Voltage %: 100% Tablet

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes____ No___ Date:____ Time:____	N/A
Current Air Temperature °C (meter reading):		22.50
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		755.10
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	N/A
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		8.60
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.45
DO concentration after Calibration (mg/L):		8.64
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	100% ✓
DO Charge (DO eh):	Acceptable Range is 25 to 75	N/A
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	N/A

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 19410200 Exp. (NOT ENTD.)	1.413
Temperature (°C)		19.28
Reading before Calibration (mS/cm)		1.358
Reading AFTER Calibration (mS/cm)		1.4146 ✓
Conductivity Cell Constant (unitless):		N/A

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table).

pH		
pH 7.0 value before calibration:	Lot # 19240057 Exp. 08/2021	
pH 7.0 value after calibration:		
pH 7.0 mV (**range is -50 to +50 mV**):		-11.6
pH 10 value before calibration:	Lot # 19320102 Exp. 08/2021	10.00 ✓
pH 10 value after calibration:		
pH 10 mV (**range is -130 to -230 mV**):	19.2°C	-182.9
pH 4.0 value before calibration:	Lot # 20010025 Exp. 08/2021	4.00
pH 4.0 value after calibration:		
pH 4.0 mV (**range is 130 to 230 mV**):		

2-9-2021 pH & mV CHECKED 17:05 (STD 7.00) → 7.07 & 18.9 mV 101% Recovery

2-9-2021

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	2-9-21	19.20 19.90
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	N/A
Reading before calibration (mV):	Lot # 19460167 Exp. 08/2021	226.0
Reading after calibration (mV):	ORP STAND = +228 mV per label. (NOT ZOBELL)	228.2 ✓

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
20 NTU Turbidity Standard	Cat No. 26484901	Before Cal:	After Cal:	19.9
100 NTU Turbidity Standard	Cat. No. 26484901	Before Cal:	After Cal:	101
800 NTU Turbidity Standard	Cat. No. 26C0501	Before Cal:	After Cal:	809
10 NTU Turbidity Check STD	Cat Lot.	Before Cal:	After Cal:	9.55
0.1 NTU Turbidity Check STD	Lot # AA0194 Exp. 09/2022	Before Cal:	After Cal:	0.21
CALIBRATION SUCCESSFUL?				YES

100 NTU Cat. No. 26C7749 provided by AIR

10 NTU TURB. verification @ 17:14

9.84 (98%R)

Date: 2/9/21
Time: 0630
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: SN: 440128
Pine Handset ID: SN 642531
Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No ✓ Date: ____ Time: ____	
Current Air Temperature °C (meter reading):		20.7
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	756.4
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	—
DO concentration after Calibration (mg/L):		8.46
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	94.5
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0589

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 19H10200	1.413
Temperature (°C)		20.3
Reading before Calibration (mS/cm)		1.407
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1.0040

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

Middle cal check

pH			
pH 7.0 value before calibration:	Lot 19340057 8/21	7.14	7.00
pH 7.0 value after calibration:	18.9°C	7.02	—
pH 7.0 mV (range is -50 to +50 mV):		-8.7	
pH 10 value before calibration:	Lot 19320102 8/21	9.93	10.02
pH 10 value after calibration:	19.2°C	10.04	
pH 10 mV (range is -130 to -230 mV):		-176.9	
pH 4.0 value before calibration:	Lot 20010025 8/21	4.39	3.91
pH 4.0 value after calibration:	19.7	4.00	—
pH 4.0 mV (range is 130 to 230 mV):		157.0	

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 8/21	18.9
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	237.0
Reading before calibration (mV):		228.8
Reading after calibration (mV):		237.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.				
20 NTU Turbidity Standard Lot A0231 Exp 11/21	Before Cal:	After Cal:	20.7	
100 NTU Turbidity Standard Lot A0218 Exp 11/21	Before Cal:	After Cal:	102	
800 NTU Turbidity Standard Lot A0204 Exp 10/21	Before Cal:	After Cal:	804	
10 NTU Turbidity Check STD Lot —	Before Cal:	After Cal:	9.46	9.46
<0.1 NTU Turbidity Check STD Lot A0322 Exp 11/22	Before Cal:	After Cal:	0.24	
CALIBRATION SUCCESSFUL?				

Hach 2100Q SN: 15040C040490

Date: 2/10/21
Time: 0620
Prepared By: Daniel Howard
Checked By: ____

Wood.
Project No. 6122201429

Pine Sonde ID: SN: H 40728
Pine Handset ID: SN 642531
Battery Voltage %: ____

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ___ No ✓ Date: ____ Time: ____	
Current Air Temperature °C (meter reading):		22.4
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	756.9
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	—
DO concentration after Calibration (mg/L):		7.86
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	91.0
DO Charge (DO ch):	Acceptable Range is 25 to 75	—
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.0994

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e, pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 19410200	1.413
Temperature (°C)		21.2
Reading before Calibration (mS/cm)		1.400
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1.0096

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

Midday cal check

pH		
pH 7.0 value before calibration:	Lot 19340057 8/21	7.24
pH 7.0 value after calibration:	20.0°C	7.02 (6.96)
pH 7.0 mV (range is -50 to +50 mV):		-14.4
pH 10 value before calibration:	Lot 19340057 8/21	10.03
pH 10 value after calibration:	20.5°C	10.04
pH 10 mV (range is -130 to -230 mV):		-181.7
pH 4.0 value before calibration:	Lot 20010025 8/21	4.45
pH 4.0 value after calibration:	19.7°C	4.00
pH 4.0 mV (range is 130 to 230 mV):		153.9

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 8/21	19.5
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	236
Reading before calibration (mV):		225.5
Reading after calibration (mV):		236.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics:			
20 NTU Turbidity Standard Lot A0231 Exp 11/21	Before Cal:	After Cal:	19.2
100 NTU Turbidity Standard Lot A0218 Exp 11/21	Before Cal:	After Cal:	104
800 NTU Turbidity Standard Lot A0204 Exp 10/21	Before Cal:	After Cal:	802
10 NTU Turbidity Check STD —	Before Cal:	After Cal:	10.4
<0.1 NTU Turbidity Check STD Lot A0342 Exp 11/22	Before Cal:	After Cal:	0.36
CALIBRATION SUCCESSFUL?			

Hach 2100Q SN: 150400040490

Date: 2/11/21
Time: 0615
Prepared By: Daniel Howard
Checked By: _____

Wood.
Project No. 6122201429

Pine Sonde ID: SN 440728
Pine Handset ID: SN 642531
Battery Voltage %: 90

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No ✓ Date: ____ Time: ____	
Current Air Temperature °C (meter reading):		21.7
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	754.3
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	--
DO concentration after Calibration (mg/L):		7.90
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	90.6
DO Charge (DO ch):	Acceptable Range is 25 to 75	--
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	1.1046

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot 19410200	1.413
Temperature (°C)		21.6
Reading before Calibration (mS/cm)		1.398
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1.0107

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table) Midday cal check

pH			
pH 7.0 value before calibration:	Lot 19340057 8/21	7.24	7.04
pH 7.0 value after calibration:	20.9°C	7.02	7.01
pH 7.0 mV (**range is -50 to +50 mV**):		-14.2	
pH 10 value before calibration:	Lot 19340054 8/21	10.02	
pH 10 value after calibration:	20.2°C	10.04	
pH 10 mV (**range is -130 to -230 mV**):		-181.5	
pH 4.0 value before calibration:	Lot 20010025 8/21	4.44	
pH 4.0 value after calibration:	20.2°C	4.00	
pH 4.0 mV (**range is 130 to 230 mV**):		153.8	

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):	Lot 19460167 8/21	20.1
Theoretical Calibration standard (mV)	0.231+0.0013(25-T) x 1000 = mV (T is Temperature °C)	236
Reading before calibration (mV):		223.7
Reading after calibration (mV):		236

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
20 NTU Turbidity Standard Lot A0231 Exp 11/21	Before Cal:	After Cal:	20.6
100 NTU Turbidity Standard Lot A0218 Exp 11/21	Before Cal:	After Cal:	96.1
800 NTU Turbidity Standard Lot A0204 Exp 10/21	Before Cal:	After Cal:	803
1.0 NTU Turbidity Check STD	Before Cal:	After Cal:	9.63
<0.1 NTU Turbidity Check STD Lot A0322 Exp 11/22	Before Cal:	After Cal:	0.26
CALIBRATION SUCCESSFUL?			

Hach 2100Q SN: 150400040490

Date: 02/09/2021
Time: 06:30
Prepared By: A. SHOROOATS
Checked By: —

Wood.
Project No. 6122201429

SMARTROLL MP
~~Pine~~ Sonde ID: 647057
~~Pine~~ Handset ID: N4
Battery Voltage %: 100
HACH 2100Q S/N 1811C071494

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes____ No X Date:____ Time:____	
Current Air Temperature °C (meter reading):		
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		30.16
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level; 565/100 x 2.54 = 14.4 mm Hg	765.81 −((381/100)x2.54)
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		= 756.13
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	96.8 89%
DO concentration after Calibration (mg/L):	10.58	(9.60) ~~90.8~~ 100.%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot# 19410206 Exp —	1.413
Temperature (°C)		19.10
Reading before Calibration (mS/cm)		1.510
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot # 19340057 Exp 08/21	7.08	16.2°C
pH 7.0 value after calibration:		7.00	
pH 7.0 mV (range is -50 to +50 mV):		-4.1	
pH 10 value before calibration:	Lot # 19320107 Exp 08/21	9.86	16. °C
pH 10 value after calibration:		10.00	
pH 10 mV (range is -130 to -230 mV):		-175.2	
pH 4.0 value before calibration:	Lot # 20010028 Exp 08/21	4.08	16.60°C
pH 4.0 value after calibration:		4.00	
pH 4.0 mV (range is 130 to 230 mV):		167.4	

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) Std 228 mV		
Calibration Temperature (°C):	Lot # 19460167 Exp. 08/21	16.1
Theoretical Calibration standard (mV)	0.231 + 0.0013(25-T) x 1000 = mV (T is Temperature °C)	—
Reading before calibration (mV):		229.2
Reading after calibration (mV):		228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.						
20 NTU Turbidity Standard	Lot # A0136	Exp 08/21	Before Cal:	20.7	After Cal:	20.7
100 NTU Turbidity Standard	Lot # A0139	Exp 08/21	Before Cal:	88.0	After Cal:	88.3
800 NTU Turbidity Standard	Lot # A0139	Exp. 08/21	Before Cal:	794	After Cal:	807
0.1 NTU Turbidity Check STD	Lot #A08199	Exp.07/22	Before Cal:	0.25	After Cal:	0.30
10 NTU Turbidity Check STD	Lot #A9326	Exp.02/21	Before Cal:	10.6	After Cal:	10.0
CALIBRATION SUCCESSFUL?						YES

Date: 02/10/2021
Time: 06:45
Prepared By: A. SHOREDITS
Checked By: —

Wood.
Project No. 6122201429

SMARTROLL MP
~~Rino~~ Sonde ID: 647057
~~Rino~~ Handset ID: NA
Battery Voltage %: 100
HACH 2100Q S/N 18110C071494

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes ____ No X Date: Time: ____	
Current Air Temperature °C (meter reading):		18.70
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		30.13 in Hg
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	765.302 mmHg - 9.6774
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		= 755.624 mmHg
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.37 98.4%
DO concentration after Calibration (mg/L):		9.75 99.9%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 19410200 Exp —	1.413
Temperature (°C)		18.00
Reading before Calibration (mS/cm)		1.411
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:	Lot # 19346057 Exp 08/21	7.09
pH 7.0 value after calibration:		7.00
pH 7.0 mV (range is -50 to +50 mV):		-3.9
pH 10 value before calibration:	Lot # 19320102 Exp 08/21	9.95
pH 10 value after calibration:		10.00
pH 10 mV (range is -130 to -230 mV):		-177.8
pH 4.0 value before calibration:	Lot # 20010025 Exp 08/21	4.03
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		167.2

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) std 228 mV		
Calibration Temperature (°C):	Lot # 19460167 Exp 08/21	17.8
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	—
Reading before calibration (mV):		224.2
Reading after calibration (mV):		228

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.						
20 NTU Turbidity Standard	Lot # A0136	Exp 08/21	Before Cal: 19.8	After Cal:	19.8
100 NTU Turbidity Standard	Lot # A0139	Exp 08/21	Before Cal: 98.8	After Cal:	99.0
800 NTU Turbidity Standard	Lot # 40139	Exp 08/21	Before Cal: 770	After Cal:	792
10 NTU Turbidity Check STD	Lot # 49[illegible]326	Exp 02/21	Before Cal: 10.1	After Cal:	10.1
0.1 NTU Turbidity Check STD	Lot # A0322	Exp 05/22	Before Cal: 0.49	After Cal:	0.48
CALIBRATION SUCCESSFUL?						YES

Date: 02/11/2021
Time: 06:35
Prepared By: A. SHORROCKS
Checked By: —

Wood.
Project No. 6122201429

SMARTROLL MP
~~Pine~~ Sonde ID: 447057
~~Pine~~ Handset ID: N/A
Battery Voltage %: 100
HACH 2100Q S/N 18110C071494

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes_____ No_X_ Date: Time:_____	
Current Air Temperature °C (meter reading):		19.10
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		30.03
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	96.8% 8.75mg/L
DO concentration after Calibration (mg/L):		9.51 99.9%
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	
DO Charge (DO ch):	Acceptable Range is 25 to 75	
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)	Lot # 19410208 Exp —	1.413
Temperature (°C)		18.4
Reading before Calibration (mS/cm)		1.420
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH			
pH 7.0 value before calibration:	Lot # 19340057 Exp 08/21	7.04	18.3°C
pH 7.0 value after calibration:		7.00	
pH 7.0 mV (**range is -50 to +50 mV**):		-4.2	
pH 10 value before calibration:	Lot # 19320102 Exp. 08/21	10.03	18.5°C
pH 10 value after calibration:		10.00	
pH 10 mV (**range is -130 to -230 mV**):		-177.6	
pH 4.0 value before calibration:	Lot # 20010825 Exp. 08/21	4.03	18.43°C
pH 4.0 value after calibration:		4.000	
pH 4.0 mV (**range is 130 to 230 mV**):		166.56	

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP) Std 228 mV		
Calibration Temperature (°C):	Lot # 19460167 Exp. 08/21	18.2
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	
Reading before calibration (mV):		233.5
Reading after calibration (mV):		228.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.						
20 NTU Turbidity Standard	Lot# A0136	Exp 08/22	Before Cal:	20.9	After Cal:	20.5
100 NTU Turbidity Standard	Lot# A0139	Exp 08/21	Before Cal:	103	After Cal:	104
800 NTU Turbidity Standard	Lot# A0139	Exp 08/21	Before Cal:	805	After Cal:	802
10 NTU Turbidity Check STD	Lot# A0199 A	Exp 07/22	Before Cal:	10.2	After Cal:	10.2
0.1 NTU Turbidity Check STD	Lot# A9326 2	Exp. 02/21 2	Before Cal:	0.52	After Cal:	0.34
CALIBRATION SUCCESSFUL?						YES

Date: 2-9-21
Time: 815
Prepared By: EVER GUILLEN
Checked By: _____

Wood.
Project No. 6122201429

~~Pine~~ AIR Sonde ID: 591714
~~Pine~~ Handset ID: 23
Battery Voltage %: 91%

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No ✓ Date: Time:	
Current Air Temperature °C (meter reading):	14.1	~~13.00~~
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	758.0
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.66
DO concentration after Calibration (mg/L):		9.30
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

1.1038

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		13.5
Reading before Calibration (mS/cm)		1.403
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		—

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.12
pH 7.0 value after calibration:		7.06
pH 7.0 mV **(range is -50 to +50 mV)**:		-7.3
pH 10 value before calibration:		9.82
pH 10 value after calibration:		10.08
pH 10 mV **(range is -130 to -230 mV)**:		-174.0
pH 4.0 value before calibration:		4.37
pH 4.0 value after calibration:		4.0
pH 4.0 mV **(range is 130 to 230 mV)**:		161.8

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		13.3
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 = mV (T is Temperature °C)	228
Reading before calibration (mV):		242.5
Reading after calibration (mV):		244

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY **Note: Lens wiper should be parked 180 degrees from the optics.**			
10 NTU Turbidity Standard	Before Cal:	After Cal:	10.1
20 NTU Turbidity Standard	Before Cal:	After Cal:	19.9
100 NTU Turbidity Standard	Before Cal:	After Cal:	98.6
800 NTU Turbidity Check STD	Before Cal:	After Cal:	797
____ NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			YES

Date: 2-10-21
Time: 730
Prepared By: Ever Guillen
Checked By: _____

Wood.
Project No. 6122201429

~~Fine~~ Air Sonde ID: 541719
~~Fine~~ Handset ID: 73
Battery Voltage %: 100

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes_____ No ✓ Date:_____ Time:_____	
Current Air Temperature °C (meter reading):		16.18
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; subtract 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	758.9
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	8.99
DO concentration after Calibration (mg/L):		9.22
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

6.0453

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		16.2
Reading before Calibration (mS/cm)		1409
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		1.0066

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.12
pH 7.0 value after calibration:		7.02
pH 7.0 mV (range is -50 to +50 mV):		-7.5
pH 10 value before calibration:	9.89	~~10.09~~
pH 10 value after calibration:		10.08
pH 10 mV (range is -130 to -230 mV):		-175.9
pH 4.0 value before calibration:		4.38
pH 4.0 value after calibration:		4.00
pH 4.0 mV (range is 130 to 230 mV):		159.5

Note: Span between pH 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		17.1
Theoretical Calibration standard (mV)	0.231 - 0.0013(25-T) x 1000 = mV (T is Temperature °C)	228.2
Reading before calibration (mV):		239.0
Reading after calibration (mV):		235.5

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
10 NTU Turbidity Standard	Before Cal:	After Cal:	9.96
20 NTU Turbidity Standard	Before Cal:	After Cal:	20
100 NTU Turbidity Standard	Before Cal:	After Cal:	99
800 NTU Turbidity Check STD	Before Cal:	After Cal:	796
NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			YES

Date: 2-11-21
Time:
Prepared By: EVER GUILLEN
Checked By:

Wood.
Project No. 6122201429

AIR
~~Pine~~ Sonde ID: 54174
Pine Handset ID: 23
Battery Voltage %: 97%

CALIBRATION PRIOR TO SAMPLING

DISSOLVED OXYGEN (DO)		VALUE
Was DO membrane changed?	Yes No ✓ Date: Time:	
Current Air Temperature °C (meter reading):		18.2
Current Barometric Pressure (from Weather Channel or NOAA.gov, which is corrected to sea level):		
Elevation Corrected Barometric Pressure to enter into YSI DO calibration:	Ex.: 30.02 in. Hg x 25.4 = mm Hg; **subtract** 2.54 mm Hg for every 100 ft. above sea level: 565/100 x 2.54 = 14.4 mm Hg	756.2
Theoretical DO (mg/L) from DO table based on current temperature and elevation corrected pressure:		-
DO concentration before Calibration (mg/L):	Depending on meter version, this may not be available.	9.54
DO concentration after Calibration (mg/L):		9.05
% Recovery (actual/theory x 100)	Range is 90 to 110% Recovery	-
DO Charge (DO ch):	Acceptable Range is 25 to 75	-
DO Gain (should be between -0.7 and 1.5):	Exit Calibration menu and go to Advanced/Cal Constants	-

1.0345

Note:

CONDUCTIVITY [Note: Calibrate before pH to avoid carry-over from pH standards (i.e. pH buffers are conductive)]		
Calibration standard used (mS/cm)		1.413
Temperature (°C)		19.5
Reading before Calibration (mS/cm)		1.438
Reading AFTER Calibration (mS/cm)		1.413
Conductivity Cell Constant (unitless):		0.9824

Note: Be sure conductivity cell is submerged and free of bubbles (gently tap sonde on table)

pH		
pH 7.0 value before calibration:		7.12
pH 7.0 value after calibration:		7.02
pH 7.0 mV **(range is -50 to +50 mV)**:		-5.8
pH 10 value before calibration:		9.92
pH 10 value after calibration:		10.04
pH 10 mV **(range is -130 to -230 mV)**:		-177.0
pH 4.0 value before calibration:		4.03
pH 4.0 value after calibration:		4.00
pH 4.0 mV **(range is 130 to 230 mV)**:		161.9

Note: Span between ph 4 and 7, and 7 and 10 should be between 165 to 180 mV

OXIDATION/REDUCTION POTENTIAL (ORP)		
Calibration Temperature (°C):		12.9
Theoretical Calibration standard (mV)	0.231−0.0013(25-T) x 1000 mV (T is Temperature °C)	228.0
Reading before calibration (mV):		236.0
Reading after calibration (mV):		238.0

Note: mV theory will change with temperature, so calculate based on your current temp.

TURBIDITY Note: Lens wiper should be parked 180 degrees from the optics.			
10 NTU Turbidity Standard	Before Cal:	After Cal:	9.97
20 NTU Turbidity Standard	Before Cal:	After Cal:	20.1
100 NTU Turbidity Standard	Before Cal:	After Cal:	100.0
800 NTU Turbidity Check STD	Before Cal:	After Cal:	807
___ NTU Turbidity Check STD	Before Cal:	After Cal:	
CALIBRATION SUCCESSFUL?			YES

Data Evaluation Narrative
Project: Plant Arkwright 2021 First Semiannual Event
Wood Project Number: 6122201429.2103.**
Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-116980-1

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the First Semiannual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in February 2021 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90. through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.
Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods SW6020B, SW7470A, EPA 300.0 R2.1, SM 2540C, SW9034, and SM 2320B.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica in Pittsburgh, Pennsylvania (TAL PIT) and analyzed for CCR total and/or dissolved metals including Appendix I (State Permit metals), Appendix III and detected Appendix IV metals by Method SW6020B, anions (chloride, fluoride, nitrate, nitrite, and sulfate) by Method 300.0 R2.1, total dissolved solids (TDS) by Method SM 2540C, sulfide by Method SW9034, and total, carbonate, and bicarbonate alkalinity (as $CaCO_3$) by Method SM 2320B. The samples were also analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. The radium analyses were performed at Eurofins TAL St. Louis, Missouri laboratory (TAL SL) and reported in SDG 180-116980-2. The DQE for the radium analyses is presented separately.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3					
ARGWA-13	02/09/21	II	ARGWC-10	02/09/21	II
ARGWA-5	02/09/21, 02/11/21	II	ARGWC-15	02/09/21	II
ARGWA-3	02/09/21, 02/11/21	II	ARGWC-17	02/09/21	
ARGWC-16	02/09/21, 02/11/21	II	ARGWC-8	02/10/21	
ARGWA-12	02/09/21	II	ARAMW-3	02/10/21	II
ARGWA-24	02/09/21	II	ARAMW-4	02/10/21	II
ARAMW-6	02/09/21	II	ARGWC-7	02/10/21	II

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3			**QC Samples**		
ARGWC-18	02/10/21, 02/11/21	II	FB-1	02/09/21	II
ARGWC-9	02/10/21, 02/11/21	II	EB-1	02/10/21	II
ARGWA-14	02/11/21	II	DUP-1	02/09/21	II

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between February 9 and February 11, 2021. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. The samples above with multiple collection dates were resampled for dissolved metals, and the earliest sample date was retained in the database. Sample DUP-1 is a field duplicate of ARGWA-24. Sample EB-1 is an equipment blank, and sample FB-1 is a field blank. The equipment blank sample associations are listed below:

Equipment Blank	Associated Samples
EB-1 (peristaltic pump)	ARAMW-3, ARAMW-4, ARAMW-6, ARGWA-24, DUP-1

The analytical results for the metals, anions, TDS, sulfide, and alkalinity data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Metals (SW6020B/SW7470A)

The samples were submitted to TAL PIT for CCR metals including Appendix I (State Permit metals), Appendix III and detected Appendix IV metals by Method SW6020B. The CCR Appendix I metals are cadmium (Cd), potassium (K), magnesium (Mg), sodium (Na), silver (Ag)and dissolved iron (Fe) and dissolved manganese (Mn), and the Appendix III metals are boron (B) and calcium (Ca). The detected CCR Appendix IV metals are arsenic (As), barium (Ba), beryllium (Be), chromium (Cr), cobalt (Co), lead (Pb), lithium (Li), molybdenum (Mo), and selenium (Se). Additionally, antimony (Sb) and mercury (Hg) were reported for four samples. Each of the Level II components were within QC limits except for continuing calibration verification (CCV) recovery and method blank contamination.

Continuing Calibration Verification (CCV)

The CCV associated with batch 180-347383 recovered above the upper control limit for boron indicating a possible high bias. The boron result in sample ARGWA-14 associated with this CCV was reported at an estimated value (J) below the reporting limit (RL) but above the method detection limit.

> *Action: No additional qualification was required for the boron result reported in sample ARGWA-14 due to high CCV recovery because the result is reported at an estimated value and flagged "J".*

Holding Times

The sample analyses were performed within the 6-month analysis holding time.

Method Blanks

One of the method blanks associated with the samples analyzed within this SDG contained a reportable concentration of boron, and associated results less than ten times the blank value are considered estimated.

Action: No qualification was necessary because boron was greater than ten times the blank value.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCSs.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

An MS/MSD was performed for mercury on sample FB-1, and the recoveries and RPDs were within QC limits. MS/MSDs for the remaining metals were not performed on any samples in this SDG.

Post Digestion Spike (PDS)

A PDS analysis was not available for review.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWA-24) was collected with this SDG, and the RPDs were within QC limits for results greater than or equal to five times the reporting limit.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. Field blank FB-1 and equipment blank EB-1 did not contain metals.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of metals by USEPA Methods SW6020B and SW7470A, and no samples required a dilution. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Total and Dissolved Metals Comparison

If total and dissolved metals samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total metals value verses the metals that may be associated with suspended solids and metals actually dissolved within the water column. Although dissolved Fe and Mn were analyzed for some samples, total Fe and Mn were not analyzed on the Ash Pond No. 3 samples.

Anions (EPA 300.0 R2.1)

The samples were submitted to TAL PIT for anions (chloride, fluoride, nitrate, nitrite, and sulfate) by Method 300.0 R2.1. Each of the Level II components were within the QC limits except for MS/MSD recoveries.

Holding Times

The sample analyses were performed within the 28-day and 48-hour analysis holding times. The laboratory flagged the associated nitrate and nitrate with "H" flags indicating the analyses were performed outside the recommended holding time limit for sample DUP-1.

> *Action: Sample DUP-1 was submitted with an arbitrary time. Therefore, using the actual sample time indicates analysis was performed with 48 hours, and the "H" flags were removed by the validator.*

Method Blanks

The method blank associated with the samples analyzed in this SDG contained no reportable detections of anions.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs for anions were performed on Ash Pond No. 3 samples ARGWC-15, ARGWC-9, and ARGWC-16, and the recoveries were within the QC limits except for low recoveries of nitrate and sulfate in sample ARGWC-16. **Reason Code: M-**

> *Action: The nitrate and sulfate results for ARGWC-16 were qualified as estimated and flagged "J", with possible low bias.*

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWA-24) was collected with this SDG, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank sample (EB-1) and field blank sample (FB-1) did not contain reportable concentrations of anions.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of anions by USEPA Method 300 R2.1. Samples that required a dilution resulted in elevated RLs.

The following sample dilutions were performed:

Sample	Anion	Dilution
ARGWA-13	sulfate	5x
ARGWC-18	sulfate	5x
ARAMW-4	sulfate	10x

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

TDS (SM 2540C)

The samples were submitted to TAL PIT for TDS by Method SM 2540C. Each of the Level II components were within the QC limits except for holding time.

Holding Times

The sample analyses were performed within the 7-day analysis holding time with one exception. Sample ARGWC-17 was initially analyzed within the holding time, however the pH of the sample as measured by the laboratory was less than 2, which indicates the sample had been collected in a preserved bottle. The sample was re-analyzed using remaining unpreserved sample out of hold, and the associated results are considered estimated. **Reason Code: H.** The laboratory reported both results.

> *Action: The re-analyzed TDS result for ARGWC-17 was qualified as estimated and flagged "J". The TDS results obtained from the preserved sample analysis is considered unusable and flagged "UR".*

Method Blanks

The method blank did not contain reportable levels of TDS.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Field Duplicate Precision

One field duplicate/sample pair in this SDG (DUP-1/ARGWA-24) was analyzed for TDS, and the RPD was within QC limits.

Laboratory Duplicate Precision

Laboratory duplicates were analyzed on project samples ARAMW-4, ARGWC-18, ARGWC-7, and ARGWA-14, and the RPDs were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank sample (EB-1) and field blank sample (FB-1) did not contain TDS.

Reporting Limits

The laboratory RL met the SCS project RL and was below the screening value of 500 mg/L for samples submitted for the analysis of TDS by Method SM 2540C and no samples required dilutions; therefore, RLs were met for this project. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory, however there were none in this SDG.

Sulfide (SW9034)

The samples were submitted to TAL PIT for sulfide by Method SW9034. Each of the Level II components were within the QC limits except for sample preservation.

Sample Preservation

The laboratory case narrative states that sample, ARGWA-14, was received at the laboratory in an unpreserved container. However, due to insufficient recharge for this well, sulfide was not collected nor requested on the COC. According to the method, aqueous samples for sulfide should be preserved with sodium hydroxide (NaOH) and zinc acetate (ZnAc) to a pH above 12. Improper preservation may result in estimated values. **Reason Code: Q**

> *Action: The sulfide result reported in sample ARGWA-14 was qualified as not detected with an imprecise reporting limit and flagged "UJ".*

Holding Times

The sample analyses were performed within the 7-day analysis holding time.

Method Blanks

The method blank associated with the samples analyzed in this SDG contained no reportable detections of sulfide.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

An MS/MSD for sulfide was performed on Ash Pond No. 3 sample ARGWC-8, and the recoveries and RPD were within QC limits.

Field Duplicate Precision

One field duplicate/sample pair (DUP-1/ARGWA-24) was collected with this SDG, and the RPD was within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank sample (EB-1) and field blank sample (FB-1) did not contain reportable concentrations of sulfide.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of sulfide by USEPA Method SW9034, and no samples required a dilution. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory, however there were none in this SDG.

Total, Carbonate, and Bicarbonate Alkalinity (SM 2520B)

The samples were submitted to TAL PIT for total, carbonate, and bicarbonate alkalinity (as $CaCO_3$) by Method SM 2520B. Each of the Level II components were within the QC limits except for LCS recoveries.

Holding Times

The sample analyses were performed within the 14-day analysis holding time.

Method Blanks

The method blank did not contain reportable levels of alkalinity.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS except for high recovery for total alkalinity in one *low-level* LCS, and associated *low-level* positive results are considered possibly biased high. **Reason Code: L+**

Action: No qualification was necessary because alkalinity was not detected in the associated sample.

Field Duplicate Precision

One field duplicate/sample pair in this SDG (DUP-1/ARGWA-24) was analyzed for alkalinity, and the RPDs were within QC limits.

Laboratory Duplicate Precision

A laboratory duplicates was performed on samples EB-1, and the RPD was within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The equipment blank sample (EB-1) and field blank sample (FB-1) did not contain alkalinity.

Reporting Limits

The laboratory RL met the SCS project RL for samples submitted for the analysis of alkalinity by Method SM 2520B and no samples required dilutions; therefore, RLs were met for this project. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory, however there were none in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 17 wells, along with the required QC samples, were sampled and analyzed during the 2021 First Semiannual event at Ash Pond No. 3 according to the FSP. The 17 well locations along with a field duplicate, field blank, and equipment blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 03/05/21
Checked by/Date: JAH 03/08/21

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-116980-1
SAMPLING DATES: February 9-11, 2021
Plant Arkwright Ash Pond No. 3 - First Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARAMW-3	ARAMW-3	N	180-116980-1	E300.0 R2.1	fluoride	0.099	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-116980-1	6020B	cobalt	0.00055	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-116980-1	6020B	lithium	0.0046	J	J	--	mg/L
ARAMW-3	ARAMW-3	N	180-116980-1	6020B	molybdenum	0.00065	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-116980-1	E300.0 R2.1	fluoride	0.028	J	J	--	mg/L
ARAMW-4	ARAMW-4	N	180-116980-1	E300.0 R2.1	nitrite	0.029	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-116980-1	E300.0 R2.1	fluoride	0.083	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-116980-1	E300.0 R2.1	nitrate	0.076	J	J	--	mg/L
ARAMW-6	ARAMW-6	N	180-116980-1	6020B	cobalt	0.00047	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-116980-1	E300.0 R2.1	fluoride	0.07	J	J	--	mg/L
ARGWA-12	ARGWA-12	N	180-116980-1	6020B	dissolved manganese	0.0019	J	J	--	mg/L
ARGWA-13	ARGWA-13	N	180-116980-1	E300.0 R2.1	fluoride	0.036	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-116980-1	6020B	boron	0.062	J	J	--	mg/L
ARGWA-14	ARGWA-14	N	180-116980-1	9034	sulfide	< 3	U	UJ	Q	mg/L
ARGWA-3	ARGWA-3	N	180-116980-1	E300.0 R2.1	fluoride	0.084	J	J	--	mg/L
ARGWA-3	ARGWA-3	N	180-116980-1	E300.0 R2.1	nitrate	0.076	J	J	--	mg/L
ARGWA-5	ARGWA-5	N	180-116980-1	E300.0 R2.1	fluoride	0.055	J	J	--	mg/L
ARGWC-10	ARGWC-10	N	180-116980-1	E300.0 R2.1	fluoride	0.051	J	J	--	mg/L
ARGWC-10	ARGWC-10	N	180-116980-1	E300.0 R2.1	nitrate	0.057	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-116980-1	E300.0 R2.1	fluoride	0.094	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-116980-1	6020B	molybdenum	0.0012	J	J	--	mg/L
ARGWC-15	ARGWC-15	N	180-116980-1	6020B	dissolved manganese	0.0035	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-116980-1	E300.0 R2.1	fluoride	0.056	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-116980-1	E300.0 R2.1	nitrate	0.71	F1	J	M-	mg/L
ARGWC-16	ARGWC-16	N	180-116980-1	E300.0 R2.1	sulfate	190	F1	J	M-	mg/L
ARGWC-16	ARGWC-16	N	180-116980-1	6020B	boron	0.076	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-116980-1	6020B	chromium	0.0018	J	J	--	mg/L
ARGWC-16	ARGWC-16	N	180-116980-1	6020B	selenium	0.0019	J	J	--	mg/L
ARGWC-17	ARGWC-17	N	180-116980-1	2540C	total dissolved solids	120	H	J	H	mg/L
ARGWC-17	ARGWC-17	N	180-116980-1	2540C	total dissolved solids	< 200	U	UR	Q	mg/L
ARGWC-17	ARGWC-17	N	180-116980-1	6020B	boron	0.042	J	J	--	mg/L
ARGWA-24	ARGWA-24	N	180-116980-1	E300.0 R2.1	fluoride	0.057	J	J	--	mg/L
ARGWA-24	ARGWA-24	N	180-116980-1	E300.0 R2.1	nitrate	0.029	J	J	--	mg/L
ARGWA-24	ARGWA-24	N	180-116980-1	6020B	cobalt	0.00088	J	J	--	
DUP-1	ARGWA-24	FD	180-116980-1	E300.0 R2.1	fluoride	0.054	J	J	--	mg/L
DUP-1	ARGWA-24	FD	180-116980-1	E300.0 R2.1	nitrate	0.028	J H	J	--	mg/L
DUP-1	ARGWA-24	FD	180-116980-1	E300.0 R2.1	nitrite	0.12	H		PJ	mg/L
DUP-1	ARGWA-24	FD	180-116980-1	6020B	cobalt	0.00092	J	J	--	mg/L

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-116980-1
SAMPLING DATES: February 9-11, 2021
Plant Arkwright Ash Pond No. 3 - First Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARGWC-18	ARGWC-18	N	180-116980-1	6020B	cobalt	0.0011	J	J	--	mg/L
ARGWC-18	ARGWC-18	N	180-116980-1	6020B	lithium	0.0041	J	J	--	mg/L
ARGWC-7	ARGWC-7	N	180-116980-1	E300.0 R2.1	fluoride	0.033	J	J	--	mg/L
ARGWC-8	ARGWC-8	N	180-116980-1	6020B	cobalt	0.00015	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-116980-1	E300.0 R2.1	fluoride	0.051	J	J	--	mg/L
ARGWC-9	ARGWC-9	N	180-116980-1	6020B	boron	0.06	J	J	--	mg/L

Notes:
Metals results are total metals unless otherwise noted.

Laboratory Qualifiers:

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

F1 = MS and/or MSD recovery exceeds control limits.

H = Sample was prepped or analyzed beyone the specified holding time

Reason Codes:
H = Holding time was exceeded
M- = MS and MSD recoveries outside acceptance limits. The result may be biased low.
Q = Chemical preservation issue.
PJ = Professional judgment

Validation Qualifiers:
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only. The associated numerical value is the approximate concentration of the analyte in the sample.
UJ = The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
UR = The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

Prepared by/Date: DWK 03/05/21
Checked by/Date: JAH 03/09/21

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR First Semiannual Event
Project No: 6122201429.2103.****
Method: Metals and Mercury by SW6020B/SW7470A
Laboratory and Lot: TAL PIT SDG: 180-116980-1
Reviewer/Date: D. Knaub 03/05/21 **Senior Reviewer/Date:** J. Hartness 03/08/21

YES NO NA COMMENTS

Metals listed on COC are "Custom 17 (App III App IV no Sb + 5"
4 samples also were marked for "7470A (Hg) and 6020B Sb".
App. III: B and Ca *detected App. IV:* As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, and Tl
App. I: diss Fe, diss Mn, K, Mg, Na, Cd, Ag

X **Case Narrative and COC Completeness Review**
OK
Narrative noted a high low-level CCV for B, the assoc. result was ***qualified as estimated "J"***: *ARAMW-14*

X **Sample Preservation and cooler temperature met (HNO_3 to pH<2)**
OK, 1.2, 2.3, 2.4, 2.4, 2.6, 2.9, 3.5, and 3.5°C

X **Holding times met (180 days, Hg = 28 days)**
Coll: 02/09/21, 02/10/21, 02/11/21
Prep: metals – 02/17/21, 02/18/21
Anal: metals – 02/18/21, 02/19/21, 02/24/21

X **QC Blanks Review**
Method Blanks:

p. 47 MB 180-346793/1-A = All ND
p. 48 MB 180-346794/1-A Fe and Mn = ND
p. 48-49 MB 180-346842/1-A = All ND
p. 49-50 MB 180-346914/1-A = All ND
p. 50 MB 180-346914/1-A B = ND
p. 51 MB 180-346981/1-A B=0.0751J x10 = **0.751 mg/L**
p. 52 MB 180-346287/1-A Hg = ND
No flags, assoc. result > 10x
p. 52 MB 180-346437/1-A Hg = ND
p. 52 MB 180-347613/1-A Hg = ND

Equipment Blank: (non-dedicated equip.)
EB-1 (peristaltic) = All ND

Field Blank: (DI water)
FB-1 = All ND

X **Laboratory Control Sample (LCS) recovery within limits (Metals 80-120%, Hg = 80-120%)**

p. 47-48 LCS 180-346793/2-A metals = all OK
p. 48 LCS 180-346794/2-A Fe, Mn = all OK
p. 49 LCS 180-346842/2-A metals = all OK
p. 50 LCS 180-346914/2-A = all OK
p. 51 LCS 180-34981/2-A = all OK
p. 52 LCS 180-346981/2-A B = 102%
p. 52 LCS 180-346287/2-A Hg = 99%
p. 52 LCS 180-346437/2-A Hg = 100%
p. 52 LCS 180-347613/2-A Hg = 107%

Metals and Mercury by SW6020B/SW7470A (cont.)

YES NO NA COMMENTS

X **Lab Duplicate - Field Duplicate precision goals met (20%)**

Results in mg/L and total unless noted

metal	ARGWA-24	DUP-1	RPD/Diff	RL
Ba	0.036	0.035	2.8%	
Ca	9.7	10	3.0%	
Co	0.00088 J	0.00092 J	0.00004	0.0025
K	0.88	0.89	1.1%	
Mg	5.7	5.6	1.8%	
Na	13	13	0.0%	
diss. Fe	0.079	0.078	1.3%	
diss. Mn	0.046	0.044	4.4%	

All RPDs/Diff OK

X **Matrix Spike recoveries and RPDs within limits (75-125%, RPD 20)**

p. 53 FB-1 Hg = 103, 103% RPD = 0

X **Total metals vs dissolved metals within limits (RPD < 20% or diff. < RL)**

Samples were analyzed for dissolved Fe and Mn but not total Fe and Mn at AP3

X **EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

All sample results checked vs. hardcopy.

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR First Semiannual Event
Project No: 6122201429.2103.****
Method: Anions (chloride, fluoride, sulfate, nitrate, and nitrite) by E300.0 R2.1
Laboratory and Lot: TAL PIT SDG: 180-116980-1
Reviewer/Date: D. Knaub 03/05/21 **Senior Reviewer/Date:** J. Hartness 03/08/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
X			**Sample Preservation and cooler temperature met (Cool to 6°C)** OK, 1.2, 2.3, 2.4, 2.4, 2.6, 2.9, 3.5, and 3.5°C	
X			**Holding times met (Cl, SO_4, F – 28 days, NO_2 and NO_3 – 48 hrs.)** Coll: 02/09/21, 02/10/21, 02/11/21 Anal: 02/11/21*, 02/12/21 ** Sample DUP-1 was submitted with an arbitrary time and flagged "H" for holding time by the lab. However, using the actual sample time indicates analysis was performed with 48 hours, and the "H" flags were removed.*	
X			**QC Blanks Review** Method Blanks: p. 45 MB 180-346228/42 = ND p. 46 MB 180-346231/6 = ND p. 47 MB 180-346366/6 = ND Equipment Blank: EB-1 = ND Field Blank: FB-1 = ND	
X			**Laboratory Control Sample (LCS) recovery within limits (90-110%)** p. 45 LCS 180-346228/5 = All %rec. ok p. 46 LCS 180-346231/5 = All %rec. ok p. 47 LCS 180-346366/5 = All %rec. ok	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)** *Results in mg/L*	

anion	ARGWA-24	DUP-1	RPD/Diff
Cl	11	11	0.0%
F	0.057 J	0.054 J	0.003 (RL =0.10)
SO_4	8.5	8.5	0.0%
NO_2	0.12	0.12	0.0%
NO_3	0.029 J	0.028 J	0.001 (RL = 0.10)

All OK

Anions (chloride, fluoride, nitrate, nitrite, and sulfate) by E300.0 R2.1 (cont.)

YES	NO	NA	COMMENTS
	X		**Matrix Spike recoveries and RPDs within limits (lab %Rec limits, RPD = 20)** p. 45 ARGWC-15 - All %rec and RPDs within OC limits p. 45-46 ARGWC-9 – All %rec and RPDs within OC limits p. 46 ARGWC-16 NO_3 = 85, 85% RPD = 0 SO_4 = 39, 61% RPD = 5 ***Flag assoc. NO_3 and SO_4 results "J": Reason Code: M-***
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)** *All sample results checked vs. hardcopy.*

Sample	**Anion**	**Dilution**
ARGWA-13	sulfate	5x
ARGWC-18	sulfate	5x
ARAMW-4	sulfate	10x

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR First Semiannual Event
Project No: 6122201429.2103.****
Method: Total Dissolved Solids (TDS) by SM 2540C
Laboratory and Lot: TAL PIT SDG: 180-116980-1
Reviewer/Date: D. Knaub 03/05/21 **Senior Reviewer/Date:** J. Hartness 03/08/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review**	
			OK – *see preservative and subsequent hold time issues below*	
	X		**Sample Preservation and cooler temperature met (Cool to 6°C)**	
			Temps: 1.2, 2.3, 2.4, 2.4, 2.6, 2.9, 3.5, and 3.5°C – OK	
			*One sample (ARGWC-17) was initially analyzed using a presumed preserved sample bottle (based on pH < 2) and was therefore re-analyzed with an unpreserved sample. See subsequent hold time issue below. ***The preserved result should be considered unusable and flagged "R".***	
	X		**Holding times met (7 days)**	
			Coll: 02/09/21, 02/10/21, 02/11/21	
			Anal: 02/12/21, 02/17/21, 02/25/21*	
			Re-anal. of ARGWC-17,* ***flag assoc. result "J": Reason code: HT*	
X			**QC Blanks Review**	
			Method Blanks	
			p. 54 MB 180-346425/2 TDS = ND	p. 54 MB 180-346428/2 TDS = ND
			p. 55 MB 180-346820/2 TDS = ND	p. 55 MB 180-346849/2 TDS = ND
			p. 55 MB 180-347022/2 TDS = ND	p. 56 MB 180-347676/1 TDS = ND
			Equipment Blanks: EB-1 TDS = ND	
			Field Blanks: FB-1 TDS = ND	
X			**Laboratory Control Sample (LCS) recovery within lab limits (80-120%)**	
			p. 54 LCS 180-346425/1 TDS = 90% - OK	p. 54 LCS 180-346428/1 TDS = 89% - OK
			p. 55 LCS 180-346820/1 TDS = 92% - OK	p. 55 LCS 180-346849/1 TDS = 96% - OK
			p. 56 LCS 180-347022/1 TDS = 91% - OK	p. 56 LCS 180-346849/1 TDS = 81% - OK
X			**Lab Duplicate - Field Duplicate precision goals met (20%)**	
			Results in mg/L	
			ARGWA-24 = DUP-1 RPD	
			TDS 110 110 0.0	
			p. 55-56 Lab dups on:	
			ARAMW-4 RPD = 6	ARGWC-18 RPD = 4
			ARGWC-7 RPD = 8	ARGWA-14 RPD = 3
		X	**Matrix Spike recoveries and RPDs within limits (if applicable)**	
			MS/MSD not applicable for TDS	
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)**	
			All sample results checked vs. hardcopy.	

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR First Semiannual Event
Project No: 6122201429.2103.****
Method: Sulfide by SW9034
Laboratory and Lot: TAL PIT SDG: 180-116980-1
Reviewer/Date: D. Knaub 03/05/21 **Senior Reviewer/Date:** J. Hartness 03/08/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
	X		**Sample Preservation and cooler temp. met (ZnAc + NaOH, Cool to 6°C)** Temp = 1.2, 2.3, 2.4, 2.4, 2.6, 2.9, 3.5, and 3.5°C - OK ARGWA-14 placed in unpreserved container – **flag results "J". *Reason code: Q*** Note: *ARGWA-14 was not sampled for sulfide nor was sulfide requested on the COC due to low recharge. The lab analyzed the sample for sulfide from available sample aliquot to meet completeness.*	
X			**Holding times met (7 days)** Coll: 02/09/21, 02/10/21, 02/11/21 Prep/Anal: 02/12/21	
X			**QC Blanks Review** Method Blanks p. 53 MB 180-346413/1-A = ND p. 53 MB 180-346416/1-A = ND p. 54 MB 180-346996/1-A = ND Equipment Blanks: EB-1 = ND Field Blanks: FB-1 = ND	
X			**Laboratory Control Sample (LCS) recovery within lab limits (85-115%)** p. 53 LCS 180-346413/1 sulfide = 86% - OK p. 53 LCS 180-346416/1 sulfide = 87% - OK p. 54 LCS 180-346996/1 sulfide = 90% - OK	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)** ARGWA-24 = DUP-1 *Both samples were ND for sulfide*	
X			**Matrix Spike recoveries and RPDs within limits (if applicable)** p. 53-54 ARGWC-8 sulfide = 88, 90% RPD = 2	
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)** *All sample results checked vs. hardcopy.*	

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright AP3 CCR First Semiannual Event
Project No: 6122201429.2103.****
Method: Total, Carbonate, and Bicarbonate Alkalinity by SM2320B
Laboratory and Lot: TAL PIT SDG: 180-116980-1
Reviewer/Date: D. Knaub 03/05/21 **Senior Reviewer/Date:** J. Hartness 03/08/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
X			**Sample Preservation and cooler temperature met (Cool to 6°C)** OK, 1.2, 2.3, 2.4, 2.4, 2.6, 2.9, 3.5, and 3.5°C	
X			**Holding times met (14 days)** Coll: 02/09/21, 02/10/21, 02/11/21 Prep/Anal: 02/13/21, 02/16/21, 02/19/21	
X			**QC Blanks Review** Method Blanks p. 56 MB 180-346651/29 = ND p. 57 MB 180-346799/30 = ND p. 58 MB 180-347175/54 = ND p. 56 MB 180-346651/6 = ND p. 57 MB 180-346799/6 = ND Equipment Blanks: EB-1 = ND Field Blanks: FB-1 = ND	
	X		**Laboratory Control Sample (LCS) recovery within lab limits (90-110%)** p. 56 LCS 180-346651/28 alk = 96% - OK p. 57 LCSS 180-346651/4 alk = 101% - OK p. 57 LCS 180-346799/5 alk = 97% p. 57 LCS 180-346651/5 alk = 96% OK p. 57 LCS 180-346799/29 alk = 104% OK p. 58 LLCS 180-346799/4 alk = 114% ***Low level alk results "J" Reason code: L+:*** *No flags assoc. sample result ND* p. 58 LCS 180-347175/53 alk = 99%	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)** ARGWA-24 = DUP-1 RPD alk, tot 60 56 6.9 alk, bicarb 60 56 6.9 p. 58 Lab dup - EB-1 RPD NC, both results ND	
		X	**Matrix Spike recoveries and RPDs within limits (if applicable)** *MS/MSD not applicable* for alkalinity	
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)** *All sample results checked vs. hardcopy.*	

Data Evaluation Narrative
Project: Plant Arkwright 2021 First Semiannual Event
Wood Project Number: 6122201429.2103.**
Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-116980-2 (radium)

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for First Semiannual groundwater sampling event conducted at Ash Pond No. 3 (Ash Monofil) at the former Plant Arkwright, located in Arkwright, Georgia in February 2021 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-116980-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3					
ARGWA-13	02/09/21	II	ARGWC-10	02/09/21	II
ARGWA-5	02/09/21	II	ARGWC-15	02/09/21	II
ARGWA-3	02/09/21	II	ARGWC-17	02/09/21	
ARGWC-16	02/09/21	II	ARGWC-8	02/10/21	
ARGWA-12	02/09/21	II	ARAMW-3	02/10/21	II
ARGWA-24	02/09/21	II	ARAMW-4	02/10/21	II
ARAMW-6	02/09/21	II	ARGWC-7	02/10/21	II

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3			**QC Samples**		
ARGWC-18	02/10/21	II	FB-1	02/09/21	II
ARGWC-9	02/10/21	II	EB-1	02/10/21	II
ARGWA-14	02/11/21	II	DUP-1	02/09/21	II

These samples were collected from the Ash Pond No. 3 monitoring wells listed above between February 9 and February 11, 2021. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-1 is a field duplicate of ARGWA-24. Sample EB-1 is an equipment blank, and sample FB-1 is a field blank. The equipment blank sample associations are listed below:

Equipment Blank	Associated Samples
EB-1 (peristaltic pump)	ARAMW-3, ARAMW-4, ARAMW-6, ARGWA-24, DUP-1

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits except for method blank contamination and LCS recoveries.

The laboratory noted in the case narrative that the following samples were prepared at a reduced aliquot: ARGWA-5, ARGWA-3, ARGWC-16, DUP-1, ARAMW-6, ARGWC-10, and ARGWA-14. The samples listed above, except for sample ARGWA-14, needed to be filtered due to sediment present in the sample indicating matrix interference. See *Overall Site Evaluation and Professional Judgment Flagging Changes* section for qualification.

Holding Times

The sample analyses were performed within the 6 months analysis holding times.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-226 above the minimum detected concentration (MDC) indicating no interference from the analytical systems. However, one of the method blanks contained radium-228 above the MDC, and any result less than the two-sigma (2σ) normalized absolute difference (NAD) limit of 2.58 are considered "not detected" as possible lab artifacts: **Reason Code: BL**

> *Action: The radium-228 and total radium results for samples ARAMW-3, ARAMW-4, EB-1, ARGWC-18, and ARGWC-9 were qualified as not detected and flagged "U*".*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits with the exception of radium-228 in one LCS/LCSD pair. Radium-228 recovered above the QC limits indicating a possible high bias. High bias effects positive results only. **Reason Code: L+**

> *Action: The positive radium-228 and total radium results for samples ARGWA-12 and ARGWC-15 were qualified as estimated and flagged "J" with a potential high bias.*

Laboratory Duplicate Precision

Laboratory duplicate analyses were performed via the analysis of LCSDs. The relative error ratios (RERs) between the LCS and LCSDs were within QC limits.

Field Duplicate Precision

One field duplicate pair (ARGWA-24 /DUP-1) was submitted and the RER could not be calculated because the results in one or both samples were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The field blank did not contain radium-226 or radium-228. The equipment blank contained radium-228 and any result less than the two-sigma (2σ) NAD limit of 2.58 are considered "not detected" as possible lab artifacts: **Reason Code: BE**

> *Action: No qualification was required because the equipment blank results were considered not detected due to method blank contamination.*

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value verses the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was used to add flags for results reported for samples ARGWA-5, ARGWA-3, ARGWC-16, DUP-1, ARAMW-6, and ARGWC-10 due to possible matrix interference from elevated sediment and reduced sample aliquot. **Reason Code: PJ**

> *Action: Results for ARGWA-5, ARGWA-3, ARGWC-16, DUP-1, ARAMW-6, and ARGWC-10 were qualified as follows: positive results were qualified as estimated and flagged "J" and results below the MDC were qualified as not detected at an approximate reporting limit and flagged "UJ".*

Completeness

A total of 17 wells, along with the required QC samples, were sampled and analyzed during the 2021 First Semiannual event at Ash Pond No. 3 according to the FSP. The 17 well locations along with a field duplicate, field blank, and equipment blank samples were reported in this SDG and were sampled and analyzed as scoped. Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: JAH 03/23/21
Checked by/Date: DWK 03/24/21

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP: 180-116980-2
SAMPLING DATES: February 9 through February 11, 2021
Plant Arkwright Ash Pond No. 3 - First Semiannual Event

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
ARAMW-3-0221	ARAMW-3	N	180-116980-2	9320	radium-228	0.742		U*	BL	pCi/L
ARAMW-3-0221	ARAMW-3	N	180-116980-2	9315 + 9320	total radium	0.83		U*	BL	pCi/L
ARAMW-4-0221	ARAMW-4	N	180-116980-2	9320	radium-228	0.837		U*	BL	pCi/L
ARAMW-4-0221	ARAMW-4	N	180-116980-2	9315 + 9320	total radium	0.932		U*	BL	pCi/L
ARAMW-6-0221	ARAMW-6	N	180-116980-2	9315	radium-226	<0.114	U	UJ	PJ	pCi/L
ARAMW-6-0221	ARAMW-6	N	180-116980-2	9320	radium-228	<0.404	U*	UJ	PJ	pCi/L
ARAMW-6-0221	ARAMW-6	N	180-116980-2	9315 + 9320	total radium	<0.404	U	UJ	PJ	pCi/L
ARGWA-12-0221	ARGWA-12	N	180-116980-2	9320	radium-228	1.08	*	J	L+	pCi/L
ARGWA-12-0221	ARGWA-12	N	180-116980-2	9315 + 9320	total radium	1.16		J	L+	pCi/L
DUP-1-0021	ARGWA-24	FD	180-116980-2	9315	radium-226	<0.117	U	UJ	PJ	pCi/L
DUP-1-0021	ARGWA-24	FD	180-116980-2	9320	radium-228	<0.434	U*	UJ	PJ	pCi/L
DUP-1-0021	ARGWA-24	FD	180-116980-2	9315 + 9320	total radium	<0.434	U	UJ	PJ	pCi/L
ARGWA-3-0221	ARGWA-3	N	180-116980-2	9315	radium-226	<0.147	U	UJ	PJ	pCi/L
ARGWA-3-0221	ARGWA-3	N	180-116980-2	9320	radium-228	<0.45	U*	UJ	PJ	pCi/L
ARGWA-3-0221	ARGWA-3	N	180-116980-2	9315 + 9320	total radium	<0.45	U	UJ	PJ	pCi/L
ARGWA-5-0221	ARGWA-5	N	180-116980-2	9315	radium-226	<0.166	U	UJ	PJ	pCi/L
ARGWA-5-0221	ARGWA-5	N	180-116980-2	9320	radium-228	<0.656	U*	UJ	PJ	pCi/L
ARGWA-5-0221	ARGWA-5	N	180-116980-2	9315 + 9320	total radium	<0.656	U	UJ	PJ	pCi/L
ARGWC-10-0221	ARGWC-10	N	180-116980-2	9315	radium-226	<0.106	U	UJ	PJ	pCi/L
ARGWC-10-0221	ARGWC-10	N	180-116980-2	9320	radium-228	<0.468	U*	UJ	PJ	pCi/L
ARGWC-10-0221	ARGWC-10	N	180-116980-2	9315 + 9320	total radium	<0.468	U	UJ	PJ	pCi/L
ARGWC-15-0221	ARGWC-15	N	180-116980-2	9320	radium-228	0.569	*	J	L+	pCi/L
ARGWC-15-0221	ARGWC-15	N	180-116980-2	9315 + 9320	total radium	0.669		J	L+	pCi/L
ARGWC-16-0221	ARGWC-16	N	180-116980-2	9315	radium-226	0.145		J	PJ	pCi/L
ARGWC-16-0221	ARGWC-16	N	180-116980-2	9320	radium-228	<0.435	U*	UJ	PJ	pCi/L
ARGWC-16-0221	ARGWC-16	N	180-116980-2	9315 + 9320	total radium	0.46		J	PJ	pCi/L
ARGWC-18-0221	ARGWC-18	N	180-116980-2	9320	radium-228	0.517		U*	BL	pCi/L
ARGWC-18-0221	ARGWC-18	N	180-116980-2	9315 + 9320	total radium	0.568		U*	BL	pCi/L
ARGWC-9-0221	ARGWC-9	N	180-116980-2	9320	radium-228	0.422		U*	BL	pCi/L
ARGWC-9-0221	ARGWC-9	N	180-116980-2	9315 + 9320	total radium	0.515		U*	BL	pCi/L
EB-1-021021	Equipment Blank	EB	180-116980-2	9320	radium-228	0.406		U*	BL	pCi/L
EB-1-021021	Equipment Blank	EB	180-116980-2	9315 + 9320	total radium	0.432		U*	BL	pCi/L

Notes:

Laboratory Qualifiers:

U = Result is less than sample detection limit.

* LCS or LCSD is outside acceptance limits

Reason Codes:

BL = Laboratory blank contamination. The result should be considered "not-detected".
L+ = LCS and LCSD recoveries outside acceptance limits. The result may be biased high.
PJ = Professional judgment

Validation Qualifiers:

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.The associated numerical value is the approximate concentration of the analyte in the sample.
UJ = The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
U* = This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Prepared by/Date: JAH 03/23/21
Checked by/Date: DWK 03/24/21

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright 1st Semiannual Event - 2021
Project No: 6122201429.2103.****
Method: Radium-226, Radium-228 and Combined Radium by Methods 9315 and 9320
Laboratory and Lot: TAL PIT SDG: 180-116980-2
Reviewer/Date: J. Hartness 03/23/21 **Senior Reviewer/Date:** D. Knaub 03/24/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review**	
			OK – Samples anal. @ TAL-St. Louis	
			The lab noted in the case narrative that the following samples were prepared at a reduced aliquot: ARGWA-5, ARGWA-3, ARGWC-16, DUP-1, ARAMW-6, ARGWC-10 and ARGWA-14.	
			The samples listed above except for sample ARGWA-14 needed to be filtered due to sediment present in the sample. This is an indicator of matrix interference.	
			Results for ARGWA-5, ARGWA-3, ARGWC-16, DUP-1, ARAMW-6, ARGWC-10 were qualified as estimated and flagged "J" or "UJ".	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)**	
			OK, 1.2° C, 2.3° C, 2.4° C, 2.4° C, 2.6° C, 2.9° C, 3.5° C and 3.5° C.	
X			**Holding times met (180 days)**	
			Collected: 02/09/21, 02/10/21, 02/11/21	
			Ra-226: prep: 02/16/21, 02/17/21, 02/18/21, 02/23/21	
			anal: 03/10/21, 03/12/21, 03/15/21, 03/12/21, 03/17/21	
			Ra 228: prep: 02/16/21, 02/17/21, 02/18/21, 02/23/21	
			anal: 03/01/21, 03/02/21, 03/04/21, 03/12/21	
			Ra, combined: anal: 03/17/21	
	X		**QC Blanks Review (net blank value <MDC)**	
			Ra-226	
			p. 38 MB 160-498914/17-A Ra-226 <MDC	
			p. 38 MB 160- 498981/23-A Ra-226 < MDC	
			p. 39 MB 160-499133/23-A Ra-226 < MDC	
			p. 408 MB 160-499580/17-A Ra-226 < MDC	
			Ra-228	
			p. 40 MB 160-498916/17-A Ra-228 < MDC	
			p. 41 MB 160-498991/23-A Ra-228 < MDC	
			p. 42 MB 160-499136/23-A Ra-228 =0.5449 pCi/L	
			(assoc. samples: ARGWC-8, ARAMW-3, ARAMW-4, ARGWC-7, EB-1, ARGWC-18, ARGWC-9)	
			Assoc. results < NAD 2σ (2.58) flagged "U*" Reason code: BL ARAMW-3, ARAMW-4, EB-1, ARGWC-18, and ARGWC-9	
			p. 43 MB 160-499586/17-A Ra-228 < MDC	
			Equipment Blanks: (non-dedicated equip.)	
			EB-01 – Ra-228 = 0.406 pCi/L - ***flagged "U*" due to MB contamination***.	
			No flags applied to samples	

YES	NO	NA	COMMENTS

QC Blanks Review (cont.)
Field Blanks: (DI water)
FB-01- All < MDC

		X	**Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3)**

Ra-226
p. 38 LCS/LCSD 160-498914/1-A, 2-A Ra-226 = 99%, 106% RER = 0.3 - OK
p. 38-39 LCS/LCSD 160- 498981/1-A, 2-A Ra-226 = 92% , 99% RER = 0.34 - OK
p. 39 LCS/LCSD 160-499133/1-A, 2-A Ra-226 = 87%, 101%, RER = 0.72 – OK
p. 40 LCS/LCSD 160-499580/1-A, 2-A Ra-226 = 96%, 96%, RER = 0.03 – OK

Ra-228
p. 41 LCS/LCSD 160-498916/1-A, 2-A, Ra-228 = 136%, 135% - **Reason Code: L+** ***Flag positive results "J". Ra-228 flagged for ARGWA-12 and ARGWC-15***. *No flags applied to associated samples (ARGWA-5, ARGWA-3, ARGWC-16, ARGWA-24, DUP-1, ARAMW-6, ARGWC-10, ARGWC-17) because they were ND.*
Note: Lab states in case narrative: "*The limits in our LIMS system at 75-125% reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of 61-138% per method requirements. Although there is a qualifier, the LCS passes. No further action is required.*"
p. 41-42 LCS/LCSD 160-498991/1-A, A-2 Ra-228 = 149%, 129% RER = 0.59 – **Reason Code: L+** ***Flag positive results "J".*** *No flags applied to associated samples (ARGWA-13, FB-1) because they were ND.*
p. 42 LCS/LCSD 160-499136/1-A, 2-A Ra-228 = 116%, 110% RER = 0.22 - OK
p. 43 LCS/LCSD 160-499586/1-A, 2-A 122%, 120% RER = 0.05 – OK

X			**Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)**

Field Duplicate: ARGWA-24 = DUP-1-0221			*RER*
Ra-226	*<MDC*	*<MDC*	*NC*
Ra-226	*<MDC*	*<MDC*	*NC*
Ra, total	*<MDC*	*<MDC*	*NC*

	X		**Matrix Spike recoveries and RPDs within limits (if applicable)**

NA

X			**Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba); Ra-228 (Carrier Ba, Tracer: Y) (40-110%)**

All ok

X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

All ok

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ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-119243-1
Client Project/Site: CCR - Plant Arkwright AP-3

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
4/19/2021 2:20:01 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Job ID: 180-119243-1
Project/Site: CCR - Plant Arkwright AP-3

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119243-1	FB-1	Water	03/29/21 14:30	03/30/21 09:00	
180-119243-2	EB-1	Water	03/29/21 14:45	03/30/21 09:00	
180-119243-3	ARGWA-24	Ground Water	03/29/21 16:16	03/30/21 09:00	
180-119243-4	DUP-1	Water	03/29/21 00:00	03/30/21 09:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
Field Sampling	Field Sampling	EPA	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Client Sample ID: FB-1

Date Collected: 03/29/21 14:30
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 14:56	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352703	04/10/21 18:14	RJR	TAL PIT
	Instrument ID: NEMO									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352831	04/12/21 18:20	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			50 mL	50 mL	353276	04/15/21 18:27	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:28	KHM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351763	04/02/21 18:56	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EB-1

Date Collected: 03/29/21 14:45
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 15:14	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352703	04/10/21 18:16	RJR	TAL PIT
	Instrument ID: NEMO									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352831	04/12/21 18:23	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			50 mL	50 mL	353276	04/15/21 18:27	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:29	KHM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351763	04/02/21 18:56	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-24

Date Collected: 03/29/21 16:16
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 16:26	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352703	04/10/21 18:19	RJR	TAL PIT
	Instrument ID: NEMO									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352831	04/12/21 18:26	RJR	TAL PIT
	Instrument ID: NEMO									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Client Sample ID: ARGWA-24

Date Collected: 03/29/21 16:16
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	353276	04/15/21 18:27	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:30	KHM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351763	04/02/21 18:56	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351416	03/29/21 16:16	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1

Date Collected: 03/29/21 00:00
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			352360	04/08/21 16:43	SAT	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352703	04/10/21 18:27	RJR	TAL PIT
	Instrument ID: NEMO									
Total Recoverable	Prep	3005A			50 mL	50 mL	352337	04/08/21 06:58	RJR	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			352831	04/12/21 18:34	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Prep	7470A			50 mL	50 mL	353276	04/15/21 18:27	KHM	TAL PIT
Total/NA	Analysis	EPA 7470A		1			353526	04/17/21 12:31	KHM	TAL PIT
	Instrument ID: HGZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	351765	04/02/21 19:20	KMM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Field Sampling		1			351416	03/29/21 00:00	FDS	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KHM = Kyle Mucroski
RJR = Ron Rosenbaum

Batch Type: Analysis

FDS = Sampler Field
KHM = Kyle Mucroski
KMM = Kendric Moore
RJR = Ron Rosenbaum
SAT = Stephen Tallam

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Client Sample ID: FB-1
Date Collected: 03/29/21 14:30
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-1
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 14:56	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 14:56	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 14:56	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 06:58	04/10/21 18:14	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		04/08/21 06:58	04/10/21 18:14	1
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 06:58	04/10/21 18:14	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 06:58	04/10/21 18:14	1
Boron	**0.066**	**J B**	0.080	0.039	mg/L		04/08/21 06:58	04/12/21 18:20	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 06:58	04/10/21 18:14	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 06:58	04/10/21 18:14	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 06:58	04/10/21 18:14	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 06:58	04/10/21 18:14	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 06:58	04/10/21 18:14	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 06:58	04/10/21 18:14	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 06:58	04/10/21 18:14	1
Selenium	<0.0015		0.0050	0.0015	mg/L		04/08/21 06:58	04/10/21 18:14	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 06:58	04/10/21 18:14	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 18:27	04/17/21 12:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/21 18:56	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Client Sample ID: EB-1

Date Collected: 03/29/21 14:45
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-2

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 15:14	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 15:14	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 15:14	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00070**	**J**	0.0020	0.00038	mg/L		04/08/21 06:58	04/10/21 18:16	1
Arsenic	**0.0021**		0.0010	0.00031	mg/L		04/08/21 06:58	04/10/21 18:16	1
Barium	**0.0023**	**J**	0.010	0.0016	mg/L		04/08/21 06:58	04/10/21 18:16	1
Beryllium	**0.0012**	**J**	0.0025	0.00018	mg/L		04/08/21 06:58	04/10/21 18:16	1
Boron	**0.058**	**J B**	0.080	0.039	mg/L		04/08/21 06:58	04/12/21 18:23	1
Cadmium	**0.0013**	**J**	0.0025	0.00022	mg/L		04/08/21 06:58	04/10/21 18:16	1
Calcium	**0.38**	**J**	0.50	0.13	mg/L		04/08/21 06:58	04/10/21 18:16	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 06:58	04/10/21 18:16	1
Cobalt	**0.0011**	**J**	0.0025	0.00013	mg/L		04/08/21 06:58	04/10/21 18:16	1
Lead	**0.0012**		0.0010	0.00013	mg/L		04/08/21 06:58	04/10/21 18:16	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 06:58	04/10/21 18:16	1
Molybdenum	**0.0011**	**J B**	0.015	0.00061	mg/L		04/08/21 06:58	04/10/21 18:16	1
Selenium	**0.0026**	**J**	0.0050	0.0015	mg/L		04/08/21 06:58	04/10/21 18:16	1
Thallium	**0.0023**		0.0010	0.00015	mg/L		04/08/21 06:58	04/10/21 18:16	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 18:27	04/17/21 12:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/21 18:56	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Client Sample ID: ARGWA-24

Date Collected: 03/29/21 16:16
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-3

Matrix: Ground Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		1.0	0.71	mg/L			04/08/21 16:26	1
Fluoride	**0.039**	**J**	0.10	0.026	mg/L			04/08/21 16:26	1
Sulfate	**7.4**		1.0	0.76	mg/L			04/08/21 16:26	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 06:58	04/10/21 18:19	1
Arsenic	**0.0014**		0.0010	0.00031	mg/L		04/08/21 06:58	04/10/21 18:19	1
Barium	**0.035**		0.010	0.0016	mg/L		04/08/21 06:58	04/10/21 18:19	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 06:58	04/10/21 18:19	1
Boron	**0.071**	**J B**	0.080	0.039	mg/L		04/08/21 06:58	04/12/21 18:26	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 06:58	04/10/21 18:19	1
Calcium	**10**		0.50	0.13	mg/L		04/08/21 06:58	04/10/21 18:19	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 06:58	04/10/21 18:19	1
Cobalt	**0.00033**	**J**	0.0025	0.00013	mg/L		04/08/21 06:58	04/10/21 18:19	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 06:58	04/10/21 18:19	1
Lithium	**0.0043**	**J**	0.0050	0.0034	mg/L		04/08/21 06:58	04/10/21 18:19	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 06:58	04/10/21 18:19	1
Selenium	<0.0015		0.0050	0.0015	mg/L		04/08/21 06:58	04/10/21 18:19	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 06:58	04/10/21 18:19	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 18:27	04/17/21 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**120**		10	10	mg/L			04/02/21 18:56	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.76**				SU			03/29/21 16:16	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-1

Client Sample ID: DUP-1
Date Collected: 03/29/21 00:00
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-4
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		1.0	0.71	mg/L			04/08/21 16:43	1
Fluoride	**0.050**	**J**	0.10	0.026	mg/L			04/08/21 16:43	1
Sulfate	**7.4**		1.0	0.76	mg/L			04/08/21 16:43	1

Method: EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 06:58	04/10/21 18:27	1
Arsenic	**0.0020**		0.0010	0.00031	mg/L		04/08/21 06:58	04/10/21 18:27	1
Barium	**0.037**		0.010	0.0016	mg/L		04/08/21 06:58	04/10/21 18:27	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 06:58	04/10/21 18:27	1
Boron	**0.077**	**J B**	0.080	0.039	mg/L		04/08/21 06:58	04/12/21 18:34	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 06:58	04/10/21 18:27	1
Calcium	**11**		0.50	0.13	mg/L		04/08/21 06:58	04/10/21 18:27	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 06:58	04/10/21 18:27	1
Cobalt	**0.00033**	**J**	0.0025	0.00013	mg/L		04/08/21 06:58	04/10/21 18:27	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 06:58	04/10/21 18:27	1
Lithium	**0.0049**	**J**	0.0050	0.0034	mg/L		04/08/21 06:58	04/10/21 18:27	1
Molybdenum	<0.00061		0.015	0.00061	mg/L		04/08/21 06:58	04/10/21 18:27	1
Selenium	<0.0015		0.0050	0.0015	mg/L		04/08/21 06:58	04/10/21 18:27	1
Thallium	<0.00015		0.0010	0.00015	mg/L		04/08/21 06:58	04/10/21 18:27	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 18:27	04/17/21 12:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		10	10	mg/L			04/02/21 19:20	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.76**				SU			03/29/21 00:00	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-352360/6
Matrix: Water
Analysis Batch: 352360

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			04/08/21 08:53	1
Fluoride	<0.026		0.10	0.026	mg/L			04/08/21 08:53	1
Sulfate	<0.76		1.0	0.76	mg/L			04/08/21 08:53	1

Lab Sample ID: LCS 180-352360/5
Matrix: Water
Analysis Batch: 352360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.8		mg/L		106	90 - 110
Fluoride	2.50	2.51		mg/L		100	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-352337/1-A
Matrix: Water
Analysis Batch: 352703

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 352337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00038		0.0020	0.00038	mg/L		04/08/21 06:58	04/10/21 17:18	1
Arsenic	<0.00031		0.0010	0.00031	mg/L		04/08/21 06:58	04/10/21 17:18	1
Barium	<0.0016		0.010	0.0016	mg/L		04/08/21 06:58	04/10/21 17:18	1
Beryllium	<0.00018		0.0025	0.00018	mg/L		04/08/21 06:58	04/10/21 17:18	1
Cadmium	<0.00022		0.0025	0.00022	mg/L		04/08/21 06:58	04/10/21 17:18	1
Calcium	<0.13		0.50	0.13	mg/L		04/08/21 06:58	04/10/21 17:18	1
Chromium	<0.0015		0.0020	0.0015	mg/L		04/08/21 06:58	04/10/21 17:18	1
Cobalt	<0.00013		0.0025	0.00013	mg/L		04/08/21 06:58	04/10/21 17:18	1
Lead	<0.00013		0.0010	0.00013	mg/L		04/08/21 06:58	04/10/21 17:18	1
Lithium	<0.0034		0.0050	0.0034	mg/L		04/08/21 06:58	04/10/21 17:18	1
Molybdenum	0.00155	J	0.015	0.00061	mg/L		04/08/21 06:58	04/10/21 17:18	1
Selenium	<0.0015		0.0050	0.0015	mg/L		04/08/21 06:58	04/10/21 17:18	1
Thallium	<0.00015	^+	0.0010	0.00015	mg/L		04/08/21 06:58	04/10/21 17:18	1

Lab Sample ID: MB 180-352337/1-A
Matrix: Water
Analysis Batch: 352831

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 352337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.039		0.080	0.039	mg/L		04/08/21 06:58	04/12/21 22:49	1

Lab Sample ID: LCS 180-352337/2-A
Matrix: Water
Analysis Batch: 352703

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 352337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.238		mg/L		95	80 - 120
Arsenic	1.00	0.942		mg/L		94	80 - 120
Barium	1.00	0.998		mg/L		100	80 - 120
Beryllium	0.500	0.461		mg/L		92	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-352337/2-A
Matrix: Water
Analysis Batch: 352703

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 352337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.500	0.508		mg/L		102	80 - 120
Calcium	25.0	27.8		mg/L		111	80 - 120
Chromium	0.500	0.482		mg/L		96	80 - 120
Cobalt	0.500	0.484		mg/L		97	80 - 120
Lead	0.500	0.486		mg/L		97	80 - 120
Lithium	0.500	0.471		mg/L		94	80 - 120
Molybdenum	0.500	0.499		mg/L		100	80 - 120
Selenium	1.00	1.04		mg/L		104	80 - 120
Thallium	1.00	0.994	^+	mg/L		99	80 - 120

Lab Sample ID: LCS 180-352337/2-A
Matrix: Water
Analysis Batch: 352831

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 352337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.08		mg/L		87	80 - 120

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-353276/1-A
Matrix: Water
Analysis Batch: 353526

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 353276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00013		0.00020	0.00013	mg/L		04/15/21 18:27	04/17/21 12:15	1

Lab Sample ID: LCS 180-353276/2-A
Matrix: Water
Analysis Batch: 353526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 353276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.00281		mg/L		112	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-351763/2
Matrix: Water
Analysis Batch: 351763

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/21 18:56	1

Lab Sample ID: LCS 180-351763/1
Matrix: Water
Analysis Batch: 351763

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	486	490		mg/L		101	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 180-351765/2
Matrix: Water
Analysis Batch: 351765

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/21 19:20	1

Lab Sample ID: LCS 180-351765/1
Matrix: Water
Analysis Batch: 351765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			457	456		mg/L		100	80 - 120		

Lab Sample ID: 180-119243-4 DU
Matrix: Water
Analysis Batch: 351765

Client Sample ID: DUP-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	110			103		mg/L				7	10

HPLC/IC

Analysis Batch: 352360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total/NA	Water	EPA 300.0 R2.1	
180-119243-2	EB-1	Total/NA	Water	EPA 300.0 R2.1	
180-119243-3	ARGWA-24	Total/NA	Ground Water	EPA 300.0 R2.1	
180-119243-4	DUP-1	Total/NA	Water	EPA 300.0 R2.1	
MB 180-352360/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-352360/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 352337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total Recoverable	Water	3005A	
180-119243-2	EB-1	Total Recoverable	Water	3005A	
180-119243-3	ARGWA-24	Total Recoverable	Ground Water	3005A	
180-119243-4	DUP-1	Total Recoverable	Water	3005A	
MB 180-352337/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-352337/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 352703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total Recoverable	Water	EPA 6020B	352337
180-119243-2	EB-1	Total Recoverable	Water	EPA 6020B	352337
180-119243-3	ARGWA-24	Total Recoverable	Ground Water	EPA 6020B	352337
180-119243-4	DUP-1	Total Recoverable	Water	EPA 6020B	352337
MB 180-352337/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	352337
LCS 180-352337/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	352337

Analysis Batch: 352831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total Recoverable	Water	EPA 6020B	352337
180-119243-2	EB-1	Total Recoverable	Water	EPA 6020B	352337
180-119243-3	ARGWA-24	Total Recoverable	Ground Water	EPA 6020B	352337
180-119243-4	DUP-1	Total Recoverable	Water	EPA 6020B	352337
MB 180-352337/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	352337
LCS 180-352337/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	352337

Prep Batch: 353276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total/NA	Water	7470A	
180-119243-2	EB-1	Total/NA	Water	7470A	
180-119243-3	ARGWA-24	Total/NA	Ground Water	7470A	
180-119243-4	DUP-1	Total/NA	Water	7470A	
MB 180-353276/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-353276/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 353526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total/NA	Water	EPA 7470A	353276
180-119243-2	EB-1	Total/NA	Water	EPA 7470A	353276
180-119243-3	ARGWA-24	Total/NA	Ground Water	EPA 7470A	353276
180-119243-4	DUP-1	Total/NA	Water	EPA 7470A	353276

Metals (Continued)

Analysis Batch: 353526 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-353276/1-A	Method Blank	Total/NA	Water	EPA 7470A	353276
LCS 180-353276/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	353276

General Chemistry

Analysis Batch: 351763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total/NA	Water	SM 2540C	
180-119243-2	EB-1	Total/NA	Water	SM 2540C	
180-119243-3	ARGWA-24	Total/NA	Ground Water	SM 2540C	
MB 180-351763/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351763/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 351765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-4	DUP-1	Total/NA	Water	SM 2540C	
MB 180-351765/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-351765/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-119243-4 DU	DUP-1	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 351416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-3	ARGWA-24	Total/NA	Ground Water	Field Sampling	
180-119243-4	DUP-1	Total/NA	Water	Field Sampling	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

Client Information	Sampler: Daniel Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested: standard			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D Appendix III + IV metals (6020B/7470A)	H Appendix III Anions (Cl, F, SO4) EPA 300.0 R2	I TDS SM 2540C	D Radium 226+228 (E9315/E9320)	Total Number of containers	Special Instructions/Note:
	Preservation Code:				X	X	D	H	I	D	X	
FB-1	3/29/21	1430	G	W			X	X	X	X	5	
EB-1		1445	G	W			X	X	X	X	5	
ARGWA-24		1616	G	W			X	X	X	X	5	pH = 5.76
DUP-1	↓	—	G	W			X	X	X	X	5	pH = 5.76
												No-Ag see attachment

180-119243 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Daniel L Howard	3/29/21 / 1820	Wood			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 3-30-21 9:00	Company ETALIT
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

ARKWRIGHT MARCH 2021 RESAMPLING

CONSTITUENT	METHOD	Reporting Limit	Method Detection Limit	Units	WELLS			
					ARGWA-24	Duplicate #1	Equipment Blank #1	Field Blank #1
			CCR Area		AP-3			
Boron	USEPA 6020B	0.080	0.039	mg/L	X	X	X	X
Calcium	USEPA 6020B	0.50	0.13	mg/L	X	X	X	X
Antimony	USEPA 6020B	0.00	0.00038	mg/L	X	X	X	X
Arsenic	USEPA 6020B	0.0010	0.00031	mg/L	X	X	X	X
Barium	USEPA 6020B	0.010	0.0016	mg/L	X	X	X	X
Beryllium	USEPA 6020B	0.0025	0.00018	mg/L	X	X	X	X
Cadmium	USEPA 6020B	0.0025	0.00022	mg/L	X	X	X	X
Chromium	USEPA 6020B	0.0020	0.0015	mg/L	X	X	X	X
Cobalt	USEPA 6020B	0.0025	0.00013	mg/L	X	X	X	X
Lead	USEPA 6020B	0.0010	0.00013	mg/L	X	X	X	X
Lithium	USEPA 6020B	0.0050	0.0034	mg/L	X	X	X	X
Molybdenum	USEPA 6020B	0.015	0.00061	mg/L	X	X	X	X
Mercury	USEPA 7470A	0.00002	0.00013	mg/L	X	X	X	X
Selenium	USEPA 6020B	0.0050	0.0015	mg/L	X	X	X	X
Thallium	USEPA 6020B	0.0010	0.00015	mg/L	X	X	X	X
Chloride	USEPA 300.0 R2.1 - Anions, Ion Chromatography	1.0	0.32	mg/L	X	X	X	X
Fluoride	USEPA 300.0 R2.1 - Anions, Ion Chromatography	0.10	0.026	mg/L	X	X	X	X
Sulfate	USEPA 300.0 R2.1 - Anions, Ion Chromatography	1.0	0.38	mg/L	X	X	X	X
TDS	SM 2540C	10.0	10.0	mg/L	X	X	X	X
Radium-226	Method: 9315 - Radium-226 (GFPC)	1.00		piC/L	X	X	X	X
Radium-228	Method: 9320 - Radium-228 (GFPC)	1.00		piC/L	X	X	X	X
Total combined Radium		2.00		piC/L	X	X	X	X

THIS IS A BACKGROUND SAMPLE EVENT #3 FOR ARGWA-24

Lift Using This Tag **Do Not Lift Using This Tag**

Align FedEx Pouch Here

180-119243 Waybill

fedex.com 1.800.GoFedEx 1.800.463.3339

ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC WOOD [illegible] GA
1075 BIG SHANTY RD NW STE 100
[illegible] GA 30144
United States US

SHIP DATE: 29MAR21
ACTWGT: 62.55 LB
CAD: 6994493/SSFE2201
DIMS: 24x15x14 IN

BILL THIRD PARTY

SAMPLE RECEIVING
TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238
(412) 963-6222
INV:
PO:
REF:
DEPT:

Part # 156297-[illegible] SSP 07/21

FedEx Express

TRK# 0215 8121 9394 6193

TUE - 30 MAR 10:30A
PRIORITY OVERNIGHT
DSR
15238
PA-US

NA AGCA

Uncorrected temp
Thermometer ID 14
CF 0 Initials
PT-WI-SR-001 effective 11/8/18

5.4 °C

Company
Address 1075 BIG SHANTY RD NW STE 100
City KENNESAW State GA ZIP 30144-3652
Phone
Dept./Floor/Suite/Room

Address
We cannot deliver to P.O. boxes or P.O. ZIP codes.
Dept./Floor/Suite/Room

Address
Use this line for the HOLD location address or for continuation of your shipping address.
City State ZIP

Hold Weekday
FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Hold Saturday
FedEx location address REQUIRED. Available ONLY for FedEx First Overnight, FedEx Priority Overnight and FedEx 2Day to select locations.

6 Special Handling and Delivery Signature Options
Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver
No Signature Required
Package may be left without obtaining a signature for delivery.
Direct Signature
Someone at recipient's address may sign for delivery.
Does this shipment contain dangerous goods?
One box must be checked.
No
Yes
As per attached Shipper's Declaration.
Yes
Shipper's Declaration not required.
Restrictions apply for dangerous goods — see the current FedEx Service Guide.

5 Packaging
FedEx Envelope*
FedEx Pak*
FedEx Box
FedEx Tube
FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.
FedEx 2Day
2nd business afternoon. Saturday Delivery NOT available.
FedEx Express Saver
3 business days.* Saturday Delivery NOT available.
* Declared value limit $500.

7 Payment Bill to:
Sender
Acct. No. in Section 1 will be billed.
Enter FedEx Acct. No.
Recipient
Third Party
Credit Card
Cash/Check
Total Packages
Total Weight
Cargo Aircraft Only

Your liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide.

* To most locations.

0128826498

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119243-1

Login Number: 119243
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-119243-2
Client Project/Site: CCR - Plant Arkwright AP-3

For:
Southern Company
241 Ralph McGill Blvd SE
B10185
Atlanta, Georgia 30308

Attn: Joju Abraham

Authorized for release by:
4/29/2021 10:21:38 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-2

Job ID: 180-119243-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-119243-2

Comments
No additional comments.

Receipt
The samples were received on 3/30/2021 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4º C.

RAD
Methods 903.0, 9315: Radium-226 prep batch 160-504285:
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-1 (180-119243-1), EB-1 (180-119243-2), ARGWA-24 (180-119243-3), DUP-1 (180-119243-4), (LCS 160-504285/1-A), (LCSD 160-504285/2-A) and (MB 160-504285/23-A)

Methods 904.0, 9320: Radium-228 Batch 160-504287
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-1 (180-119243-1), EB-1 (180-119243-2), ARGWA-24 (180-119243-3), DUP-1 (180-119243-4), (LCS 160-504287/1-A), (LCSD 160-504287/2-A) and (MB 160-504287/23-A)

Method PrecSep_0: Radium 228 Prep Batch 160-504287:
Insufficient sample volume was available to perform a sample duplicate for the following samples: FB-1 (180-119243-1), EB-1 (180-119243-2), ARGWA-24 (180-119243-3) and DUP-1 (180-119243-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-504285:
Insufficient sample volume was available to perform a sample duplicate for the following samples: FB-1 (180-119243-1), EB-1 (180-119243-2), ARGWA-24 (180-119243-3) and DUP-1 (180-119243-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Job ID: 180-119243-2
Project/Site: CCR - Plant Arkwright AP-3

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Job ID: 180-119243-2
Project/Site: CCR - Plant Arkwright AP-3

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-21
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21 *
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-21
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-21
Kentucky (DW)	State	KY90125	01-01-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-21
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-119243-1	FB-1	Water	03/29/21 14:30	03/30/21 09:00	
180-119243-2	EB-1	Water	03/29/21 14:45	03/30/21 09:00	
180-119243-3	ARGWA-24	Ground Water	03/29/21 16:16	03/30/21 09:00	
180-119243-4	DUP-1	Water	03/29/21 00:00	03/30/21 09:00	

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-2

Client Sample ID: FB-1
Date Collected: 03/29/21 14:30
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.30 mL	1.0 g	504285	04/05/21 20:23	JEC	TAL SL
Total/NA	Analysis	9315		1			507329	04/27/21 10:29	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			1000.30 mL	1.0 g	504287	04/05/21 20:54	JEC	TAL SL
Total/NA	Analysis	9320		1			506612	04/20/21 12:53	AK	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			507531	04/28/21 22:06	GRW	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: EB-1
Date Collected: 03/29/21 14:45
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.11 mL	1.0 g	504285	04/05/21 20:23	JEC	TAL SL
Total/NA	Analysis	9315		1			507329	04/27/21 10:29	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			1000.11 mL	1.0 g	504287	04/05/21 20:54	JEC	TAL SL
Total/NA	Analysis	9320		1			506612	04/20/21 12:53	AK	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			507531	04/28/21 22:06	GRW	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: ARGWA-24
Date Collected: 03/29/21 16:16
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.63 mL	1.0 g	504285	04/05/21 20:23	JEC	TAL SL
Total/NA	Analysis	9315		1			507329	04/27/21 10:30	SCB	TAL SL
	Instrument ID: GFPCPURPLE									
Total/NA	Prep	PrecSep_0			1000.63 mL	1.0 g	504287	04/05/21 20:54	JEC	TAL SL
Total/NA	Analysis	9320		1			506612	04/20/21 12:54	AK	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			507531	04/28/21 22:06	GRW	TAL SL
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-1
Date Collected: 03/29/21 00:00
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000.04 mL	1.0 g	504285	04/05/21 20:23	JEC	TAL SL
Total/NA	Analysis	9315		1			507329	04/27/21 10:30	SCB	TAL SL
	Instrument ID: GFPCPURPLE									

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-2

Client Sample ID: DUP-1
Date Collected: 03/29/21 00:00
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000.04 mL	1.0 g	504287	04/05/21 20:54	JEC	TAL SL
Total/NA	Analysis	9320		1			506612	04/20/21 12:54	AK	TAL SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			507531	04/28/21 22:06	GRW	TAL SL
	Instrument ID: NOEQUIP									

Laboratory References:
TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:
Lab: TAL SL
Batch Type: Prep
JEC = Julia Crossen
Batch Type: Analysis
AK = Amanda Kraus
GRW = George Witt
SCB = Sarah Bernsen

Client Sample ID: FB-1

Date Collected: 03/29/21 14:30
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0421	U	0.0657	0.0658	1.00	0.114	pCi/L	04/05/21 20:23	04/27/21 10:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*04/05/21 20:23*	*04/27/21 10:29*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.242	U	0.231	0.232	1.00	0.372	pCi/L	04/05/21 20:54	04/20/21 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:53*	*1*
Y Carrier	*85.2*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.284	U	0.240	0.241	5.00	0.372	pCi/L		04/28/21 22:06	1

Client Sample ID: EB-1

Date Collected: 03/29/21 14:45
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0744	U	0.0772	0.0775	1.00	0.122	pCi/L	04/05/21 20:23	04/27/21 10:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*40 - 110*	*04/05/21 20:23*	*04/27/21 10:29*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0461	U	0.185	0.185	1.00	0.348	pCi/L	04/05/21 20:54	04/20/21 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:53*	*1*
Y Carrier	*84.5*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0283	U	0.200	0.201	5.00	0.348	pCi/L		04/28/21 22:06	1

Client Sample ID: ARGWA-24

Date Collected: 03/29/21 16:16
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-3

Matrix: Ground Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0958	U	0.0777	0.0782	1.00	0.114	pCi/L	04/05/21 20:23	04/27/21 10:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*04/05/21 20:23*	*04/27/21 10:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.144	U	0.210	0.211	1.00	0.405	pCi/L	04/05/21 20:54	04/20/21 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:54*	*1*
Y Carrier	*84.1*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0486	U	0.224	0.225	5.00	0.405	pCi/L		04/28/21 22:06	1

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-2

Client Sample ID: DUP-1
Date Collected: 03/29/21 00:00
Date Received: 03/30/21 09:00

Lab Sample ID: 180-119243-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00325	U	0.0661	0.0661	1.00	0.134	pCi/L	04/05/21 20:23	04/27/21 10:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.5*		*40 - 110*	*04/05/21 20:23*	*04/27/21 10:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.201	U	0.250	0.251	1.00	0.415	pCi/L	04/05/21 20:54	04/20/21 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.5*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:54*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/05/21 20:54*	*04/20/21 12:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.198	U	0.259	0.260	5.00	0.415	pCi/L		04/28/21 22:06	1

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-504285/23-A
Matrix: Water
Analysis Batch: 507513

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 504285

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.004628	U	0.0482	0.0482	1.00	0.101	pCi/L	04/05/21 20:23	04/28/21 10:37	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*04/05/21 20:23*	*04/28/21 10:37*	*1*

Lab Sample ID: LCS 160-504285/1-A
Matrix: Water
Analysis Batch: 507329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 504285

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	12.03		1.25	1.00	0.107	pCi/L	106	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*

Lab Sample ID: LCSD 160-504285/2-A
Matrix: Water
Analysis Batch: 507329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 504285

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	10.64		1.13	1.00	0.125	pCi/L	94	75 - 125	0.58	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*87.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-504287/23-A
Matrix: Water
Analysis Batch: 506274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 504287

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2040	U	0.215	0.216	1.00	0.351	pCi/L	04/05/21 20:54	04/20/21 13:11	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*04/05/21 20:54*	*04/20/21 13:11*	*1*
Y Carrier	*84.5*		*40 - 110*	*04/05/21 20:54*	*04/20/21 13:11*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-504287/1-A
Matrix: Water
Analysis Batch: 506612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 504287

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.27	7.849		0.947	1.00	0.364	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*
Y Carrier	*92.3*		*40 - 110*

Lab Sample ID: LCSD 160-504287/2-A
Matrix: Water
Analysis Batch: 506612

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 504287

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			7.27	7.872		0.970	1.00	0.382	pCi/L	108	75 - 125	0.01	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*87.6*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Arkwright AP-3

Job ID: 180-119243-2

Rad

Prep Batch: 504285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total/NA	Water	PrecSep-21	
180-119243-2	EB-1	Total/NA	Water	PrecSep-21	
180-119243-3	ARGWA-24	Total/NA	Ground Water	PrecSep-21	
180-119243-4	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-504285/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-504285/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-504285/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 504287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-119243-1	FB-1	Total/NA	Water	PrecSep_0	
180-119243-2	EB-1	Total/NA	Water	PrecSep_0	
180-119243-3	ARGWA-24	Total/NA	Ground Water	PrecSep_0	
180-119243-4	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-504287/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-504287/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-504287/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

Client Information	Sampler: Daniel Howard	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone:	E-Mail: shali.brown@eurofinset.com		Page:
Company: GA Power				Job #:
Address: 241 Ralph McGill Blvd SE	Due Date Requested: standard			
City: Atlanta	TAT Requested (days): standard			
State, Zip: GA, 30308				
Phone: 404-506-7116(Tel)	PO #:			
Email: SCS Contacts	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Georgia	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D Appendix III + IV metals (6020B/7470A)	H Appendix III Anions (Cl, F, SO4) EPA 300.0 R2.1	I TDS SM 2540C	D Radium 226+228 (E9315/E9320)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	H	I	D	X	
FB-1	3/29/21	1430	G	W			X	X	X	X	5	
EB-1		1445	G	W			X	X	X	X	5	
ARGWA-24		1616	G	W			X	X	X	X	5	pH = 5.76
DUP-1	↓	—	G	W			X	X	X	X	5	pH = 5.76
												No-Ag see attachment

180-119243 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Daniel L Howard	3/29/21 / 1820	Wood			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 3-30-21 9:00	Company ETA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

ARKWRIGHT MARCH 2021 RESAMPLING

CONSTITUENT	METHOD	Reporting Limit	Method Detection Limit	Units	WELLS			
					ARGWA-24	Duplicate #1	Equipment Blank #1	Field Blank #1
			CCR Area		AP-3			
Boron	USEPA 6020B	0.080	0.039	mg/L	X	X	X	X
Calcium	USEPA 6020B	0.50	0.13	mg/L	X	X	X	X
Antimony	USEPA 6020B	0.00	0.00038	mg/L	X	X	X	X
Arsenic	USEPA 6020B	0.0010	0.00031	mg/L	X	X	X	X
Barium	USEPA 6020B	0.010	0.0016	mg/L	X	X	X	X
Beryllium	USEPA 6020B	0.0025	0.00018	mg/L	X	X	X	X
Cadmium	USEPA 6020B	0.0025	0.00022	mg/L	X	X	X	X
Chromium	USEPA 6020B	0.0020	0.0015	mg/L	X	X	X	X
Cobalt	USEPA 6020B	0.0025	0.00013	mg/L	X	X	X	X
Lead	USEPA 6020B	0.0010	0.00013	mg/L	X	X	X	X
Lithium	USEPA 6020B	0.0050	0.0034	mg/L	X	X	X	X
Molybdenum	USEPA 6020B	0.015	0.00061	mg/L	X	X	X	X
Mercury	USEPA 7470A	0.00002	0.00013	mg/L	X	X	X	X
Selenium	USEPA 6020B	0.0050	0.0015	mg/L	X	X	X	X
Thallium	USEPA 6020B	0.0010	0.00015	mg/L	X	X	X	X
Chloride	USEPA 300.0 R2.1 - Anions, Ion Chromatography	1.0	0.32	mg/L	X	X	X	X
Fluoride	USEPA 300.0 R2.1 - Anions, Ion Chromatography	0.10	0.026	mg/L	X	X	X	X
Sulfate	USEPA 300.0 R2.1 - Anions, Ion Chromatography	1.0	0.38	mg/L	X	X	X	X
TDS	SM 2540C	10.0	10.0	mg/L	X	X	X	X
Radium-226	Method: 9315 - Radium-226 (GFPC)	1.00		piC/L	X	X	X	X
Radium-228	Method: 9320 - Radium-228 (GFPC)	1.00		piC/L	X	X	X	X
Total combined Radium		2.00		piC/L	X	X	X	X

THIS IS A BACKGROUND SAMPLE EVENT #3 FOR ARGWA-24

Lift Using This Tag

Do Not Lift Using This Tag

Align FedEx Pouch Here

fedex.com 1.800.GoFedEx 1.800.463.3339

180-11924З Waybill

Uncorrected temp
Thermometer ID

CF ___ Initials

PT-WI-SR-001 effective 11/8/18

TUE – 30 MAR 10:30A
PRIORITY OVERNIGHT
DSR
15238

TRK# 0215 8121 9394 6193

NA AGCA

PA-US

FedEx Express

(412) 863-6222

ORIGIN ID:MCNA (770) 421-3382
DANIEL HOWARD
AMEC WOOD E & IS
1075 BIG SHANTY RD NW STE 100
KENNESAW GA 30144
UNITED STATES US

SHIP DATE: 29MAR21
ACTWGT: 62.55 LB
CAD: 6994493/SSFE2201
DIMS: 24x15x14 IN

BILL THIRD PARTY

SAMPLE RECEIVING
TESTAMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238

INV#:
PO#:
DEPT#:
REF#:

Part # 156297-XXX-XXXP 07/21

Company
Address
City
State
ZIP
Dept./Floor/Suite/Room
Phone

1075 BIG SHANTY RD NW STE 100
KENNESAW GA 30144-3652

Hold Weekday
Hold Saturday
Address
City
State
ZIP

5 Packaging
6 Special Handling and Delivery Signature Options
7 Payment Bill to:
Sender
Recipient
Third Party
Credit Card
Cash
Total Packages
Total Weight

0128826459

R97 FZ
1 A
10:30
0339

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 180-430500.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shali.Brown@Eurofinset.com	State of Origin: Georgia	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-119243-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/3/2021			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: CCR - Plant Arkwright	Project #: 18020201			
Site: Arkwright	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium 228	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
FB-1 (180-119243-1)	3/29/21	14:30 Eastern		Water			X	X	X	2	
EB-1 (180-119243-2)	3/29/21	14:45 Eastern		Water			X	X	X	2	
ARGWA-24 (180-119243-3)	3/29/21	16:16 Eastern		Water			X	X	X	2	
DUP-1 (180-119243-4)	3/29/21	Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company		Date/Time:	Company
Relinquished by:	3/31/21 1700	ETA Pitt	Received by: FED EX		
Relinquished by: FED EX	Date/Time:	Company	Received by:	Date/Time: 4/2/21 1630	Company ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119243-2
SDG Number:

Login Number: 119243
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-119243-2
SDG Number:

Login Number: 119243
List Number: 2
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 04/02/21 05:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Georgia Power Site Sampling Data (GW)

Site Name: Plant Arkwright AP3

Date/Date Range: 3/29/21

Well ID	Sample Date	Sample Time	Field Blank	Equipment Blank	Field Dup.	Additional Comments
FB-1	3/29/21	1430	FB-1			Field Blank For 3/29/21
EB-1	3/29/21	1445		EB-1		Equip Blank of HDPE tubing used with peristaltic pump
ARGWA-24	3/29/21	1616				
DUP-1	3/29/21	—			ARGWA-24	Duplicate of ARGWA-24 (DUP-1)

Additional Comments: Field Blank FB-1 was taken at Ash Pond 3 using ASTM Type I/II water, RICCA Brand Lot# 2003C38, Exp 9/21. Equip Blank EB-1 was collected from HDPE tubing (Lot THPE-1714-500) using ASTM Type I/II reagent water, RICCA Brand Lot# 2003C38, Exp 9/21

Low-Flow Test Report:

Test Date / Time: 3/29/2021 3:44:45 PM
Project: Plant Arkwright CCR AP3 (2)
Operator Name: Daniel Howard

Location Name: ARGWA-24
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 17.99 ft
Total Depth: 27.99 ft

Pump Type: Peristaltic
Tubing Type: HDPE
Pump Intake From TOC: 22.99 ft
Estimated Total Volume Pumped: 6000 ml
Flow Cell Volume: 90 ml
Final Flow Rate: 200 ml/min

Instrument Used: Aqua TROLL 400
Serial Number: 728563

Test Notes:

ARGWA-24 sample time 1616. Collected DUP-1 at this location all analyses

Weather Conditions:

Clear and sunny, temp 68 F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 5	+/- 10	+/- 0.3	
3/29/2021 3:44 PM	00:00	5.76 pH	20.58 °C	149.56 µS/cm	2.45 mg/L	3.40 NTU	164.4 mV	19.55 ft	200.00 ml/min
3/29/2021 3:49 PM	05:00	5.75 pH	20.57 °C	149.89 µS/cm	2.45 mg/L	3.60 NTU	174.8 mV	19.55 ft	200.00 ml/min
3/29/2021 3:54 PM	10:00	5.76 pH	20.68 °C	150.71 µS/cm	2.34 mg/L	2.88 NTU	138.9 mV	19.55 ft	200.00 ml/min
3/29/2021 3:59 PM	15:00	5.75 pH	21.02 °C	149.00 µS/cm	2.31 mg/L	2.47 NTU	133.4 mV	19.55 ft	200.00 ml/min
3/29/2021 4:04 PM	20:00	5.75 pH	21.14 °C	148.61 µS/cm	2.32 mg/L	2.34 NTU	129.3 mV	19.55 ft	200.00 ml/min
3/29/2021 4:09 PM	25:00	5.75 pH	21.33 °C	150.01 µS/cm	2.28 mg/L	2.09 NTU	126.4 mV	19.55 ft	200.00 ml/min
3/29/2021 4:14 PM	30:00	5.76 pH	21.20 °C	148.39 µS/cm	2.29 mg/L	2.13 NTU	123.1 mV	19.55 ft	200.00 ml/min

Samples

Sample ID:	Description:
ARGWA-24	Sample time 1616. Groundwater sample

PROJECT NAME: Plant Arkwright, GA - CCR GW

PLANT Arkwright FIELD SAMPLING REPORT

Project Number: 6122-20-1429.2001

Wood ES Solutions, Inc
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: _X_ 2021 March Re-Sample Event; __ OTHER

WELL ID / SAMPLE ID: ~~FB-01~~ FB-1 MATRIX: Groundwater

WELL MATERIAL: __ PVC __ SS __ OTHER

SAMPLE METHOD: Direct Fill

DUP./REP. OF:_____

Pump Intake Set at (btoc):_____

or

Tubing Inlet Set at (btoc):_____

WELL DIAMETER: _____

DEPTH TO WATER:_____ GRAB (x) COMPOSITE ( )

TOTAL DEPTH:_____

WATER COLUMN HEIGHT:_____

PURGE VOLUME:_____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or ±10% for DO > 0.5 mg/L) for DO < 0.5 mg/L record only	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) (<5 NTU)	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC)[1]
Initial:								[ ]	

NOTES:

[1] Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs Collected Field blank of ASTM Type I water (Brand RICCA, Lot: 2003C38 / Exp 9/21)

SAMPLE DATE: 3/29/21

SAMPLE TIME: 1430

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL poly	1	HNO3 to pH <2	SW6020B	App III, IV Total Metals*
250 mL poly	1	Cool to 6°C	EPA 300.0 R2.1	App III Anions**
500 mL poly	1	Cool to 6°C	SM 2540C	Total Dissolved Solids (TDS)
1L poly	2	HNO3 to pH <2	E9315/E9320	Radium 226 & 228 combined

GENERAL INFORMATION	
WEATHER:	Clear + Sunny, Temp 68°F
SHIPPED VIA:	FED-X
SHIPPED TO:	~~PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 PGC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com~~ Eurofins Test America
SAMPLER: Daniel Howard	OBSERVER:

* Total Metals - App III = Boron, Calcium, App IV = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

** App. III Anions = Chloride, Fluoride, Sulfate

PROJECT NAME: Plant Arkwright, GA - CCR GW

PLANT Arkwright FIELD SAMPLING REPORT

Project Number: 6122-20-1429.2001

Wood E&I Solutions, Inc.
1675 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX (770) 421-3486

SAMPLING EVENT: _X_ 2021 March Re-Sample Event; ___ OTHER

WELL ID / SAMPLE ID: ~~EB-01~~ EB-1 MATRIX: Groundwater

WELL MATERIAL: __ PVC __ SS __ OTHER

SAMPLE METHOD: Peristaltic pump

DUP./REP. OF:_____

Pump Intake Set at (btoc):_____

or

Tubing Inlet Set at (btoc):_____

WELL DIAMETER: _____

DEPTH TO WATER:_____

GRAB (x) COMPOSITE ( )

TOTAL DEPTH:_____

WATER COLUMN HEIGHT:_____

PURGE VOLUME:_____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L; for DO < 0.5 mg/L record only	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC)[1]
Initial:								( )	

NOTES:

Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 feet or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs Equipment blank of Tubing use to sample well HDPE Lot THPE-M14-500, Water used ASTM Type I water (Bronx Lot: 2003C38 / Exp 9/21

SAMPLE DATE: 3/29/21

SAMPLE TIME: 1445

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL poly	1	HNO3 to pH <2	SW6020B	App III, IV Total Metals*
250 mL poly	1	Cool to 6°C	EPA 300.0 R2.1	App III Anions**
500 mL poly	1	Cool to 6°C	SM 2540C	Total Dissolved Solids (TDS)
1L poly	2	HNO3 to pH <2	E9315/E9320	Radium 226 & 228 combined

GENERAL INFORMATION	
WEATHER:	Clear & Sunny, Temp 68°F
SHIPPED VIA:	FED-X
SHIPPED TO:	~~PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel betsy.mcdaniel@pacelabs.com~~ Eurofins TestAmerica
SAMPLER: Daniel Howard	OBSERVER:

* Total Metals - App III = Boron, Calcium, App IV = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

** App. III Anions = Chloride, Fluoride, Sulfate

PROJECT NAME: Plant Arkwright, GA - CCR GW

PLANT Arkwright FIELD SAMPLING REPORT

Project Number: 6122-20-1429.2001

Wood E&I Solutions, Inc
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE (770) 421-3400 / FAX (770) 421-3486

SAMPLING EVENT: _X_ 2021 March Re-Sample Event; ___ OTHER

WELL ID / SAMPLE ID: **ARGWA-24** MATRIX: Groundwater

WELL MATERIAL: __PVC __SS __OTHER

SAMPLE METHOD: Peristaltic pump

DUP./REP. OF: DUP-1

WELL DIAMETER: 2

DEPTH TO WATER: 19.50

TOTAL DEPTH: 27.99

GRAB (x) COMPOSITE ( )

Pump Intake Set at (btoc):_____

or

Tubing Inlet Set at (btoc): 22.99

WATER COLUMN HEIGHT:_____

PURGE VOLUME:_____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L) for DO < 0.5 mg/L record only	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) (+/- 5%)	TEMP (°C) Record only	TURB. (NTU) (<5 NTU)	Pump Rate ml/min. [& pump setting] (100 ml/min)	Water Level (Ft BTOC)[1]
Initial: 1544	0	2.45	164.4	5.76	149.56	20.58	3.40	200 [ ]	19.55
1549	0.25	2.45	174.8	5.75	149.89	20.57	3.60	200	19.55
1554	0.5	2.34	138.9	5.76	150.71	20.68	2.88	200	19.55
1559	0.75	2.31	133.4	5.75	149.00	21.02	2.47	200	19.55
1604	1.0	2.32	129.3	5.75	148.01	21.14	2.34	200	19.55
1609	1.25	2.28	126.7	5.75	150.01	21.33	2.09	200	19.55
1614	1.50	2.29	123.1	5.76	148.39	21.20	2.13	200	19.55

NOTES:

[1] Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs Collected DUP-1 for all analyses

SAMPLE DATE: 3/29/21

SAMPLE TIME: 1616

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS	pH check
250 mL poly	2	HNO3 to pH <2	SW6020B	App III, IV Total Metals*	< 2
250 mL poly	2	Cool to 6°C	EPA 300.0 R2.1	App III Anions**	
500 mL poly	2	Cool to 6°C	SM 2540C	Total Dissolved Solids (TDS)	
1L poly	4	HNO3 to pH <2	E9315/E9320	Radium 226 & 228 combined	< 2

GENERAL INFORMATION	
WEATHER:	Clear & Sunny, Temp 68°F
SHIPPED VIA:	FED-X
SHIPPED TO:	~~PACE Laboratories • 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 ROC: Betsy McDaniel; betsy.mcdaniel@pacelabs.com~~ Encofin Test America
SAMPLER: Daniel Howard	OBSERVER:

* Total Metals - App III = Boron, Calcium, App IV = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium

** App. III Anions = Chloride, Fluoride, Sulfate

Calibration Report

Instrument	Aqua TROLL 400
Serial Number	728563
Created	3/31/2021

Sensor: RDO

Serial Number	728772
Last Calibrated	3/29/2021

Calibration Details

Slope	1.111525
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.63 mg/L
Temperature	17.28 °C
Barometric Pressure	1,011.7 mbar

Sensor: Conductivity

Serial Number	728563
Last Calibrated	3/29/2021

Calibration Details

Cell Constant	0.991
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor: Level

Serial Number	728332
Last Calibrated	Factory Defaults

Sensor: pH/ORP

Serial Number	20788
Last Calibrated	3/29/2021

Calibration Details

Total Calibration Points	3

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	167.9 mV
Temperature	17.77 °C

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-5.7 mV
Temperature	16.56 °C

Calibration Point 3

pH of Buffer	10.08 pH
pH mV	-177.1 mV
Temperature	16.69 °C

Slope and Offset 1

Slope	-57.48 mV/pH
Offset	-4.6 mV

Slope and Offset 2

Slope	-56 mV/pH
Offset	-4.6 mV

ORP

ORP Solution	ZoBell's
Offset	1.5 mV
Temperature	17.03 °C

Data Evaluation Narrative
Project: Plant Arkwright AP3 Background and Delineation Sampling
Wood Project Number: 6122201429.2103.**
Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-119243-1 Rev. 1

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Background and Delineation groundwater sampling event #3 for new well ARGWA-24 conducted at Ash Pond No. 3 Ash Monofill at the former Plant Arkwright, located in Arkwright, Georgia in March 2021 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in USEPA Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

Qualifier	Usable Data
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control (QC) criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The revised data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods SW6020B, SW7470A, EPA 300.0, and SM 2540C.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica in Pittsburgh, Pennsylvania (TAL PIT) and analyzed for specific total Appendix III and IV metals by Method SW6020B, mercury by Method SW7470A, anions (chloride, fluoride, and sulfate) by Method 300.0 R2.1, and total dissolved solids (TDS) by SM2540C.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact, within temperature range, and properly preserved. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and/or quality control (QC) samples:

Sample ID	Sample Date	DQE Level	QC Samples:	Sample Date	DQE Level
ARGWA-24	03/29/21	II	EB-1	03/29/21	II
			FB-1	03/29/21	II
			DUP-1	03/29/21	II

These samples were collected from newly installed Ash Pond No. 3 monitoring wells listed above on March 29, 2021. Sample DUP-1 is a field duplicate of ARGWA-24. The field and equipment blanks associated with this event include field blank FB-1 and equipment blank EB-1. Wood added a date code suffix to the sample IDs (-032921) to create a unique sample ID in the database.

The analytical results for the metals, anions, and TDS data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Metals (SW6020B)

The samples were submitted to TAL PIT for total CCR Appendix III and IV metals by Methods SW6020B and SW7470A. The CCR Appendix III metals are: boron (B) and calcium (Ca). The CCR Appendix IV metals are: antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), lead (Pb), lithium (Li), mercury (Hg), molybdenum (Mo), selenium (Se), and thallium (Tl). Each of the Level II components were within the QC limits except for method and equipment blank contamination.

Holding Times

The sample analyses were performed within the 6-month analysis holding time.

Method Blanks

The method blanks associated with the samples analyzed within this SDG contained reportable concentrations of molybdenum, and associated results less than ten times the blank value are considered estimated.

> *Action: No qualification was necessary because molybdenum was not detected in the associated samples.*

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

A batch MS/MSD analysis was not performed on any sample from this SDG.

Post Digestion Spike (PDS)

A PDS analysis was not available for review.

Field Duplicate Precision

One field duplicate/sample pair, DUP-1/ARGWA-24, was collected and reported with this SDG, and the RPDs between the parent and duplicate were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. One field blank (FB-1) and one equipment blank (EB-1) were collected with this sampling event. Sample FB-1 reported a detection of boron between the method detection limit (MDL) and the reporting limit (RL), and sample EB-1 reported detections of boron and thallium between the MDL and RL. Associated results less than ten times the blank value are considered estimated. **Reason Code: BF/BE**

> *Action: The associated boron results were qualified as not detected due to equipment blank contamination and flagged "U*". Thallium was not detected in any of the associated samples.*

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of metals by USEPA Methods SW6020B. The laboratory RL was elevated where dilutions were required to place the constituent within the calibration range. None of the samples in this SDG required dilution.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Total and Dissolved Metals Comparison

If total and dissolved metals samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total metals value verses the metals that may be associated with suspended solids and metals actually dissolved within the water column. The dissolved metals results should be less than or equal to the total metals concentration for positive results greater than 5 times the RL. Dissolved metals were not reported for any of the samples in this SDG.

Anions (EPA 300.0 R2.1)

The samples were submitted to TAL PIT for anions (chloride, fluoride, and sulfate) by Method 300.0 R2.1. Each of the Level II components were within the QC limits.

Holding Times

The sample analyses were performed within the 28-day holding time.

Method Blanks

The method blank associated with the samples analyzed in this SDG contained no reportable detections of anions.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

A batch MS/MSD for anions was not performed any sample from this SDG.

Field Duplicate Precision

One field duplicate/sample pair, DUP-1/ARGWA-24, was collected and reported with this SDG, and the RPDs between the parent and duplicate were within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The field blanks and equipment blank samples did not contain reportable detections of anions.

Reporting Limits

The laboratory RLs met the SCS project RLs and were below the screening values for samples submitted for the analysis of anions by USEPA Method 300 R2.1. No sample dilutions were required. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Total Dissolved Solids (SM 2540C)

Samples were submitted to TAL PIT for TDS by Method SM 2540C to help determine aquifer characteristics. Each of the Level II components were within laboratory QC limits.

Holding Times

The sample analyses were performed within the 7-day analysis holding time.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of TDS.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCS.

Field Duplicate Precision

One field duplicate/sample pair, DUP-1/ARGWA-24, was collected and reported with this SDG, and the RPD between the parent and duplicate was within QC limits.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

The field blanks and equipment blank samples did not contain TDS.

Reporting Limits

The laboratory RLs were met for samples submitted for the analysis of TDS by Method SM 2540C and no samples required dilutions. Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated; however, no TDS results were reported between the MDL and RL in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags applied to any results reported in this SDG.

Completeness

A total of 1 well in Ash Pond No. 3, along with the required QC samples, was sampled and analyzed during the March 2021 background event #3 for new well ARGWA-24 event according to the Scope of Work provided for the background and delineation sampling.

Completeness of the field sampling activities were assessed in terms of the actual number and type of sample results received from the field and laboratory, as compared with the planned number and type of sample results. All samples planned were collected which meets a field completeness of 100%.

Analytical completeness of data is a measure of the number of valid project-specific data results obtained in comparison to the total number of data results projected to achieve project DQOs. Valid data are defined as data that meet the project-specific DQOs. All sample results were usable which equals a completeness of 100%, which exceeds the 90 percent goal for field and laboratory data expected for this project.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 05/04/21
Checked by/Date: JAH 05/05/21

TABLE 1
SUMMARY OF DATA QUALIFIERS

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright Background and Delineation
Project No: 6122201429.2103.****
Method: Metals by SW6020B
Laboratory and Lot: TAL PIT SDG: 180-119243-1 Rev. 1
Reviewer/Date: D. Knaub 05/04/21 **Senior Reviewer/Date:** J. Hartness 05/05/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK – *Revisions as requested were included in the revised report*	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)** Ok, 5.4°C Temp	
X			**Holding times met (180 days)** Coll: 03/29/21 Prep: Total metals – 04/08/21 Anal: Total metals – 04/10/21, 04/12/21, 04/28/21	
	X		**QC Blanks Review** Method Blanks: p. 14 MB 180-352337/1-A Mo = 0.00155 J x10 = **0.0155 mg/L** ***Flag results <10x blank "U*":*** *None – samples ND* p. 14 MB 180-352337/1-A B = ND Field Blank: FB-1: B= 0.066 J x 10 **= 0.66 mg/L** ***Flag results <10x blank "U*":*** *ARGWA-24, DUP-1* Equipment Blank: EB-1 B = 0.058 J x 10 = **0.58 mg/L** ***Flag results <10x blank "U*":*** *ARGWA-24, DUP-1* Tl= 0.00028 J x 10 = **0.0028 mg/L** ***Flag results <10x blank "U*":*** *None – samples ND*	
X			**Laboratory Control Sample (LCS) recovery within limits (Metals 80-120%, Hg = 80-120%)** p. 14 - 15 LCS 180-352337/2-A = All OK p. 15 LCS 180-352337/2-A B = 87%	

Metals by SW6020B (cont.)

YES	NO	NA		COMMENTS
X			**Lab Duplicate - Field Duplicate precision goals met (20%)**	

No lab dups reported with this SDG

	Dup-1 (mg/L)	ARGWA-24 (mg/L)	RPD
As	0.0020	0.0014	17.6
Ba	0.037	0.035	5.5
B	0.077J	0.071J	NC
Ca	11	10	9.5
Co	0.00033J	0.00033 J	NC
Li	0.0049J	0.0043J	NC

X **Matrix Spike recoveries and RPDs within limits (75-125%, RPD 20)**

No MS/MSDs for metals in this SDG

X **Total metals vs dissolved metals within limits (RPD < 20% or diff. < RL)**

Total metals only was reported

X **EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

100% of results were checked

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright Background and Delineation
Project No: 6122201429.2103.****
Method: Mercury by SW7470A
Laboratory and Lot: TAL PIT SDG: 180-119243-1 Rev. 1
Reviewer/Date: D. Knaub 05/04/21 **Senior Reviewer/Date:** J. Hartness 05/05/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
X			**Sample Preservation and cooler temperature met (Cool to 6°C)** Ok, 5.4°C Temp	
X			**Holding times met (28 days)** Coll: 03/29/21 Prep: 04/15/21 Anal: 04/17/21	
X			**QC Blanks Review** Method Blanks p. 15 MB 180-353276/1-A = ND Field Blanks: FB-1 = ND Equipment Blank: EB-1 = ND	
X			**Laboratory Control Sample (LCS) recovery within lab limits (80-120%)** p. 15 LCS 180-353276/2-A = 112% - OK	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)** No Lab duplicate reported with this SDG Dup-1 = ARGWA-24 RPD *Both samples ND for mercery ok*	
		X	**Matrix Spike recoveries and RPDs within limits (if applicable)** MS/MSD not reported with this SDG	
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)** 100% of results were checked	

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright Background and Delineation
Project No: 6122201429.2103.****
Method: Anions (chloride, fluoride, and sulfate) by E300.0 R2.1
Laboratory and Lot: TAL PIT SDG: 180-119243-1 Rev. 1
Reviewer/Date: D. Knaub 05/04/21 **Senior Reviewer/Date:** J. Hartness 05/05/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
X			**Sample Preservation and cooler temperature met (Cool to 6ºC)** Ok, 5.4°C Temp	
X			**Holding times met (NO_2, NO_3 – 48 hrs; Cl, SO_4, F – 28 days)** Coll: 03/29/21 Anal: Cl, F, SO_4: 04/08/21	
X			**QC Blanks Review** Method Blanks: p. 14 MB 180-352360/6 – Cl, F, SO_4 = All ND Field Blanks: FB-1 = ND Equipment Blank: EB-1 = ND	
X			**Laboratory Control Sample (LCS) recovery within limits (90-110%)** p. 14, LCS 180-352360/5 – Cl, F, SO_4 = All %rec OK,	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)** No lab dups reported with this SDG	
		X	**Matrix Spike recoveries and RPDs within limits (lab %Rec limits, RPD = 20)** No MS/MSDs in this SDG	
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)** 100% of results were checked	

	Dup-1	= ARGWA-24 (in mg/L)	RPD
Cl	11	11	0.0
F	0.050J	0.039 J	NC
SO_4	7.4	7.4	0.0

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright Background and Delineation
Project No: 6122201429.2103.****
Method: Total Dissolved Solids (TDS) by SM2540C
Laboratory and Lot: TAL PIT SDG: 180-119243-1 Rev. 1
Reviewer/Date: D. Knaub 05/04/21 **Senior Reviewer/Date:** J. Hartness 05/05/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK	
X			**Sample Preservation and cooler temperature met (Cool to 6°C)** Ok, 5.4°C Temp	
X			**Holding times met (7 days)** Coll: 03/29/21 Anal: 04/02/21	
X			**QC Blanks Review** Method Blanks p. 15 MB 180-351763/2 = ND p. 16 MB 180-351765/2 = ND Field Blanks: FB-1 = ND Equipment Blank: EB-1 = ND	
X			**Laboratory Control Sample (LCS) recovery within lab limits (80-120%)** p. 15 LCS 180-351763/1 = 101% p. 16 LCS 180-351765/1 = 100%	
X			**Lab Duplicate - Field Duplicate precision goals met (20%)** p. 16 Lab duplicate on DUP-1 RPD = 7 OK	

	Dup-1 =	ARGWA-24 (in mg/L)	RPD
TDS	110	120	8.7

	X		**Matrix Spike recoveries and RPDs within limits (if applicable)** MS/MSD not applicable to TDS
X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)** 100% of results were checked

Data Evaluation Narrative
Project: Plant Arkwright AP3 Background and Delineation Sampling
Wood Project Number: 6122201429.2103.**
Site: Ash Pond No. 3 – Former Plant Arkwright, Georgia
Matrix: Groundwater

Eurofins TestAmerica SDG No: 180-119243-2 (Radium)

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Background and Delineation groundwater sampling event #3 for new well ARGWA-24 conducted at Ash Pond No. 3 (Ash Monofill) at the former Plant Arkwright, located in Arkwright, Georgia in March 2021 for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Former Plant Arkwright Field Sampling Plan* (FSP) (SCS, 2016) and in accordance with the monitoring requirements of §§ 257.90 through 257.95 as referenced in the Georgia Environmental Protection Division (EPD) Rules 391-3-4-.10(6)(a)-(c) and 391-3-4-.14. GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory's precision and accuracy limits, the method requirements, and the SCS Field Sampling Plan (FSP) (SCS, 2016). DQE data qualifications were applied, if necessary, using the procedures in United States Environmental Protection Agency (USEPA) Region IV *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy* (USEPA, 2011) and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017), as guidance, and professional judgment using the following qualifiers:

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J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. *SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.*
UJ	The analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

Qualifier	Usable Data (continued)
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. *Note: SCS does not use the "U" flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).*
U*	This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

Qualifier	Unusable Data
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control (QC) criteria. The presence or absence of the analyte cannot be confirmed.
UR	The analyte was analyzed for but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this SDG are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood) is complete to perform a Level II DQE for USEPA Methods 9315 and 9320.

Sample Integrity

The groundwater samples were submitted to Eurofins TestAmerica laboratory located in St. Louis, Missouri (TAL SL) via the Pittsburgh, Pennsylvania location and analyzed for radium-226 and 228 combined by Methods SW9315 and SW9320. As requested by SCS, the radium data was reported separately from the other CCR Appendix III and IV parameters (reported in SDG 180-119243-1).

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package.

Sample Identification

This SDG contains the following groundwater and QC samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
Ash Pond No. 3			**QC Samples**		
ARGWA-24	03/29/21	II	FB-1	03/29/21	II
			EB-1	03/29/21	II
			DUP-1	03/29/21	II

These samples were collected from the newly installed Ash Pond No. 3 monitoring wells listed above on March 29, 2021. Each of the sample IDs above were amended with a sample date code (-mmddyy) by Wood to create unique IDs in the database. Sample DUP-1 is a field duplicate of ARGWC-24. Samples FB-1 and EB-1 are field and equipment blanks collected on the peristatic pump tubing used during this event.

The analytical results for the radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Radium (SW9315/SW9320)

The samples were submitted to TAL SL for radium-226, radium-228 and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within laboratory QC limits.

Holding Time

The sample analyses were performed within the 6 months analysis holding time.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of radium-226 or radium-228 above the minimum detected concentration (MDC) indicating no interference from the analytical systems.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits.

Laboratory Duplicate Precision

Laboratory duplicate analyses were not performed with this SDG.

Field Duplicate Precision

One field duplicate pair (ARGWA-24/DUP-1) was submitted, and the RER could not be calculated because the results in both samples were less than the MDCs.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process on non-dedicated sampling equipment. Field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. The equipment blank (EB-1) and field blank (FB-1) did not contain radium-226 or radium-228 above the MDC.

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limits of 40% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) met the SCS project RLs and were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Total and Dissolved Radium Comparison

If total and dissolved radium samples were collected, comparison of the total and dissolved results can aid in the representativeness of the total radium value verses the radium that may be associated with suspended solids and radium actually dissolved within the water column. The dissolved radium results should be less than or equal to the total radium concentration for positive results greater than 5 times the RL. No total and dissolved samples were collected and reported in this SDG.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan and validation SOPs. Professional judgment was not used to modify flags for results reported in samples presented in this SDG.

Completeness

A total of 1 well, along with the required QC samples, were sampled and analyzed during the March 2021 background event #3 for new well ARGWA-24 in Ash Pond No. 3 according to the FSP. The well location along with field duplicate, equipment blank, and field blank samples were reported in this SDG and were sampled and analyzed as scoped.

Therefore, both field and analytical completeness calculated for this SDG was 100%.

References

SCS, 2016, Draft Field Sampling Plan – Former Plant Arkwright, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016. Permit modification to include the Appendix III and IV sampling requirements; approval of modified permit and FSP pending.

USEPA, 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; September 2011.

USEPA, 2017. National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0; January 2017.

Prepared by/Date: DWK 05/04/2021
Checked by/Date: JAH 05/04/21

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUP 180-119243-2
SAMPLING DATE: March 29, 2021
Plant Arkwright Ash Pond No. 3 Background and Delinieation Sampling

Field Sample ID	Location ID	Type	SDG	Method	Parameter Name	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
No qualification was required										

Notes:
No qualification was required for the data reported in this sample delivery group.

Prepared by/Date: DWK 05/04/21
Checked by/Date: JAH 05/04/21

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Arkwright CCR Background and Delineation (Background Event #3 for new well ARGWA-24)
Project No: 6122201429.2103.****
Method: Radium-226, Radium-228 and Combined Radium by Methods 9315 and 9320
Laboratory and Lot: TAL PIT SDG: 180-119243-2
Reviewer/Date: D. Knaub 05/04/21 **Senior Reviewer/Date:** J. Hartness 05/04/21

YES	NO	NA		COMMENTS
X			**Case Narrative and COC Completeness Review** OK – Samples anal. @ TAL-St. Louis	
X			**Sample Preservation and cooler temperature met (HNO_3 to pH<2)** OK, 5.4º C.	
X			**Holding times met (180 days)** Collected: 03/29/21 Ra-226: prep: 04/05/21 anal: 04/27/21 Ra 228: prep: 04/05/21 anal: 04/20/21 Ra, combined: anal: 04/28/21	
X			**QC Blanks Review (net blank value <MDC)** Ra-226 p. 14 MB 160-504285/23-A Ra-226 < MDC Ra-228 p. 14 MB 160-504287/23-A Ra-228 < MDC Equipment Blank: EB-1 - All < MDC Field Blank: FB-1 - All < MDC	
X			**Laboratory Control Sample (LCS) recovery within lab limits (75-125%; RPD = RER (2σ <3)** Ra-226 p. 14 LCS/LCSD 160-504285/1-A. 2-A Ra-226 = 106, 94% RER = 0.58 Ra-228 p. 15 LCS/LCSD 160-504287/1-A, 2-A Ra-228 = 108, 108%, RER = 0.01	

YES	NO	NA	COMMENTS
X			**Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)**

Field Duplicate: ARGWA-24 = DUP-1-

Ra-226	*<MDC*	*<MDC*	*NC*
Ra-226	*<MDC*	*<MDC*	*NC*
Ra, total	*<MDC*	*<MDC*	*NC*

	X		**Matrix Spike recoveries and RPDs within limits (if applicable)**

NA

X			**Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba);**

All OK

X			**EDD Data Verification vs. Hardcopy (10% samples for each SDG)**

100% of results were confirmed

RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS

Quality control procedures included calculating the relative percent difference (RPD) between sample and sample duplicate concentrations. This is calculated as:

$$RPD = \frac{Conc\ 1 - Conc\ 2}{(Conc\ 1 + Conc\ 2) / 2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

The RPD calculations are provided in the RPD Calculations table for detected concentrations above the PQL for wells and corresponding duplicates for the August, September/October 2020, December 2020, February 2021, and March 2021 sampling events. Other constituents were below the PQL. For an RPD to be representative of the process, the concentrations have to be five times the PQL in accordance with US EPA guidance on inorganic data review, (US EPA August 2014). The RPD values of concentrations five times the PQL ranged within the allowable 20% RPD indicating good sampling precision.

RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS

Ash Pond #3			
Parameter	**Concentration 1**	**Concentration 2**	
8/19/2020	**DUP-1**	**ARGWC-10**	**RPD**
Barium	0.034	0.034	0.0%
Chromium	0.0051	0.0049	4.0%
Parameter	**Concentration 1**	**Concentration 2**	
9/29/2020	**DUP-1**	**ARGWC-17**	**RPD**
Calcium	13	12	8.0%
Chloride	3.5	3.4	2.9%
Sulfate	69	66	4.4%
TDS	140	140	0.0%
Barium	0.058	0.056	3.5%
Cobalt	0.027	0.027	0.0%

Concentrations in mg/L

Parameter	Concentration 1	Concentration 2	
2/09/2021	**DUP-1**	**ARGWA-24**	**RPD**
Barium	0.035	0.036	2.8%
Calcium	10	9.7	3.0%
Potassium	0.89	0.88	1.1%
Magnesium	5.6	5.7	1.8%
Sodium	13	13	0.0%
Iron, dissolved	0.078	0.079	1.3%
Manganese, dissolved	0.044	0.046	4.4%
Chloride	11	11	0.0%
Sulfate	8.5	8.5	0.0%
Nitrite	0.12	0.12	0.0%
Total Dissolved Solids	110	110	0.0%
Alkalinity, total	56	60	6.9%
Alkalintiy, bicarbonate	56	60	6.9%
Parameter	**Concentration 1**	**Concentration 2**	
3/29/2021	**DUP-1**	**ARGWA-24**	**RPD**
Calcium	11	10	9.5%
Chloride	11	11	0%
Sulfate	7.4	7.4	0%
TDS	110	120	8.7%
Arsenic	0.002	0.0014	35.3%
Barium	0.037	0.035	5.6%

Concentrations in mg/L

Prepared by: DWK 05/19/2021

Checked by: JAH 05/27/21

APPENDIX C

STATISTICAL ANALYSES

TABLE C1
STATISTICAL ANALYSIS SUMMARY
FOR APPENDIX III CONSTITUENTS
SEPTEMBER/OCTOBER 2020 AND FEBRUARY 2021 EVENTS
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, Georgia

Appendix III Constituent	Monitoring Event	Wells with Concentrations Above Prediction Limits (SSI)
Boron	September/October 2020	ARGWC-8 and ARGWC-18
pH	September/October 2020	ARGWC-15 and AGWC-16
Boron	February 2021	ARGWC-8 and ARGWC-18
pH	February 2021	ARGWC-16 and AGWC-17

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 Arkwright #3 Ash Pond
September/October 2020 Statistical Analysis 1st Semi-Annual Sample Event

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September/October 2020 1st Semi-Annual Groundwater statistical analysis of monitoring data for Georgia Power Company's Plant Arkwright #3 Ash Pond. The analysis complies with the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Semi-annual sampling is conducted for USEPA's CCR Appendix III and IV parameters in addition to Appendix I parameters in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** ARGWA-3, ARGWA-5, ARGWA-12, ARGWA-13, and ARGWA-14
- **Downgradient wells:** ARGWC-7, ARGWC-8, ARGWC-9, ARGWC-10, ARGWC-15, ARGWC-16, ARGWC-17, and ARGWC-18
- **Delineation wells:** ARAMW-3, ARAMW-4, and ARAMW-6

When a minimum of 4 samples is available, delineation wells are evaluated using confidence intervals for the Appendix IV constituents.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting (GSC).

The CCR and Georgia EPD programs monitor the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **Georgia Appendix I:** arsenic, barium, cadmium, lead, selenium, and silver
- **CCR Appendix III:** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **CCR Appendix IV:** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lithium, lead, mercury, molybdenum, selenium, and thallium

Data for Appendix III constituents were analyzed using prediction limits; data for Appendix I constituents were analyzed using prediction limits and confidence intervals; and data for Appendix IV metals were analyzed using confidence intervals. Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. Summaries of well/constituent pairs with 100% nondetects since 2016 for Appendix I metals and Appendix IV constituents follow this letter. Additionally, when Appendix IV constituents are not detected during a scheduled Scan event, no statistical analyses are required during the semi-annual sample event. During the annual Scan event conducted in August 2020, antimony, cadmium, and mercury were not detected, and therefore, were not required to be sampled during the September/October 2020 event. Those three constituents were included on time series and box plots, but were not included in statistical analyses.

For all constituents, a substitution of the most recent reporting limit is used for nondetect data. For calculating prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case. I In the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group.

Time series plots for all well/constituent pairs are provided and are particularly useful for screening parameters detected in downgradient wells which require statistical analyses (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).

Based on the previous screening, described below, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method 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 are provided with this report to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. 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. Power curves were based on the following:

Georgia Appendix I Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 5 (cadmium was not detected during the August 2020 Scan event)
- # Downgradient wells: 8

CCR Appendix III Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 7
- # Downgradient wells: 8

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals, as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with parametric limits is based on an annual 10% (5% per semi-annual event) as recommend by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling nondetects (USEPA, 2009).

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit

utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening - Conducted in 2019

Outliers

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells and parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. Several values were flagged as outliers as a result of the Tukey's tests. In some cases, high values not identified by this test were flagged as outliers so that resulting prediction limits will be lower and capable of detecting future changes at these wells. Outliers were flagged in downgradient wells, though there are no intrawell statistical analyses in the current report. This improves the estimate of downgradient confidence intervals and provides for possible future application of intrawell statistics. As noted below, current values that could result in exceedances were not flagged.

A summary of flagged values is included in Figure C. When the most recent values are identified as outliers, those values are not flagged in the database at that time (except in cases where they would cause background limits to be elevated) as they may represent a possible exceedance in a downgradient well or a possible trend in an upgradient well. If

future values (resampling in the case of an exceedance) do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers. Due to changing reporting limits, when nondetects are replaced with the most recent reporting limit, previously flagged "J" values (or estimated values) are sometimes flagged as outliers if they are much higher than current reporting limits.

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

Seasonality

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.

Trends

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, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. When any 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.

Several statistically significant increasing and decreasing trends were noted for constituents in both upgradient and downgradient wells, and the results of these trend tests were included with the previous screening. With one exception, no adjustments were required to these records as the magnitudes of the trends are low relative to the average concentrations at these wells. The exception is selenium at upgradient well ARGWA-13 which has higher reported values since 2014 compared to those previously reported. Because this is an upgradient well, this suggests groundwater concentrations are naturally changing unrelated to the site. Therefore, the earlier portion of the record is truncated so that resulting analyses using selenium data from this well, including interwell prediction limits, will be representative of present-day conditions. Truncated data are shown in a lighter font on the data pages this report. Adjusted date ranges are presented in the Date Range Table.

Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells for constituents detected in downgradient wells. The ANOVA 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 are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified significant differences among upgradient well data for several constituents. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix I and Appendix III constituents in accordance with Georgia EPD requirements.

Statistical Limits Appendix I Metals & Appendix III Parameters – September/October 2020

All Appendix I metals and Appendix III parameters were analyzed using interwell prediction limits. Data were re-assessed for potential outliers during this analysis. For barium, a value of 0.084 mg/L for ARGWA-14 was unflagged as it resembled similar concentrations within well ARGWA-14. For chloride, a value of 7.34 mg/L for ARGWC-15 was unflagged as it resembled similar concentrations within well ARGWC-15 and a value of 9.4 mg/L was flagged for ARGWC-8 as an outlier for being higher than other

concentrations within well ARGWC-8. For sulfate, values of 0 mg/L and 0.984 mg/L were unflagged as outliers for well ARGWC-10 being below the reporting limit of 1 mg/L. An updated summary of flagged outliers follows this report (Figure C). Note that the interwell limit for sulfate is high because of high concentrations in upgradient well ARGWA-13. Since this limit will not be sensitive to changes in sulfate concentrations in downgradient wells, consideration should be given to using intrawell limits for this constituent in the future.

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through October 2020 for Appendix I metals and Appendix III constituents (Figures D & E, respectively). As mentioned above, cadmium was not required to be sampled during the October 2020 sample event, and therefore, was not included in statistical analyses. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Summary tables, along with complete results of the interwell prediction limits for Appendix I metals and Appendix III constituents, follow this letter. No exceedances were noted for Appendix I metals, but the following exceedances were identified for the Appendix III constituents:

Appendix III constituents:

- Boron: ARGWC-8 and ARGWC-18
- pH: ARGWC-15 and ARGWC-16

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 F). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of natural variability in groundwater quality

unrelated to practices at the site. Both a summary table and graphical display of trend tests results follows this letter, and no statistically significant trends were noted.

Confidence Intervals Appendix I Metals & Appendix IV Parameters – September/October 2020

For Appendix I metals and Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Ground Water Protection Standards (GWPS). GWPS were developed as described below. Downgradient and delineation well/constituent pairs that have 100% ND or trace values below the reporting limits do not require analysis. Data from all wells for Appendix I metals and Appendix IV parameters are reassessed for outliers during each analysis. An updated summary of flagged outliers follows this report (Figure C).

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data for Appendix I metals and Appendix IV constituents (Figure G). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under Georgia EPD Rule 391-3-4-.10(6)(a). As described in 40 CFR §257.95(h) (1-3), 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 Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix I metals and Appendix IV constituents for the September/October 2020 sample event for the state rules (Figure H). To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix I metals and Appendix IV constituents in accordance with the state requirements in each downgradient well and only delineation wells with a minimum of 4 samples (Figure I). 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. Summaries and graphical results of the confidence intervals

analyses follow this letter. Exceedances were noted for the following well/constituent pairs:

- Cobalt: ARAMW-4 and ARGWC-17
- Molybdenum: ARGWC-8

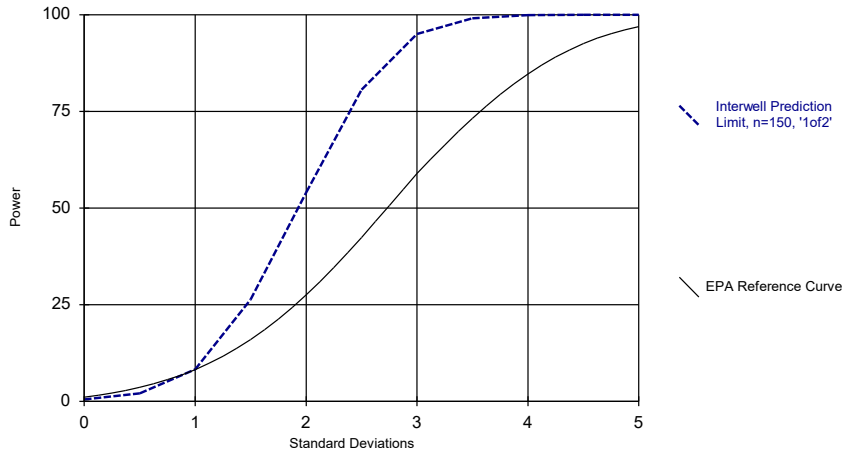
Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Arkwright #3 Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Andrew Collins
Project Manager

Kristina Rayner
Groundwater Statistician

Appendix I Power Curve



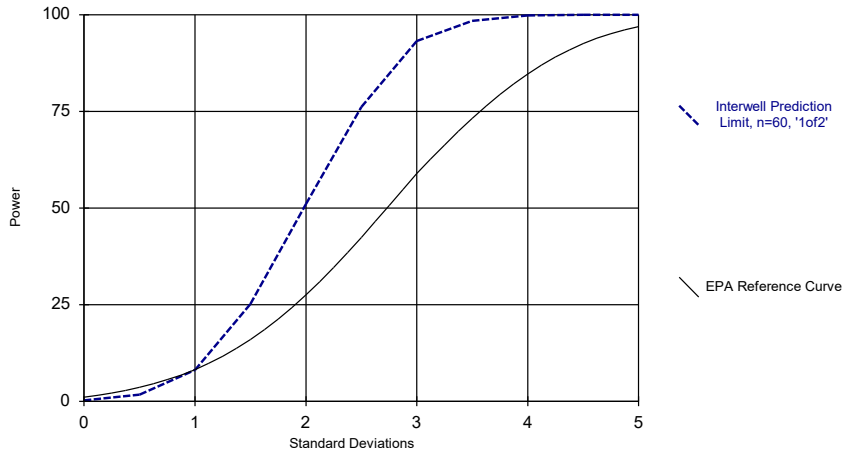
Kappa = 1.83, based on 8 compliance wells and 5 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 12/4/2020 11:55 AM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Appendix III Power Curve



Kappa = 1.89, based on 8 compliance wells and 5 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 12/4/2020 11:56 AM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Date Ranges

Date: 12/2/2020 1:18 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Selenium (mg/L)

ARGWA-13 overall:11/18/2014-10/1/2020

100% Non-Detects: Appendix I

Analysis Run 12/3/2020 2:09 PM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Cadmium (mg/L)
ARGWC-10, ARGWC-15, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Lead (mg/L)
ARGWC-16, ARGWC-17, ARGWC-7

Selenium (mg/L)
ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-8

Silver (mg/L)
ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

100% Non-Detects: Appendix I & IV

Analysis Run 12/4/2020 11:35 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Antimony (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-15, ARGWC-16, ARGWC-17, ARGWC-18, ARGWC-8

Arsenic (mg/L)
ARAMW-3, ARAMW-6

Beryllium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-15

Cadmium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-15, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Chromium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-18

Lead (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-16, ARGWC-17, ARGWC-7

Lithium (mg/L)
ARAMW-6

Mercury (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-17, ARGWC-9

Molybdenum (mg/L)
ARGWC-10, ARGWC-16, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-9

Selenium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-8

Silver (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Thallium (mg/L)
ARAMW-3, ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9

Appendix I - Interwell Prediction Limits - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:23 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-15	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-16	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-17	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-18	0.005	n/a	9/30/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-7	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-8	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-9	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-10	0.24	n/a	10/1/2020	0.032	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-15	0.24	n/a	9/29/2020	0.03	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-16	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-17	0.24	n/a	9/29/2020	0.056	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-18	0.24	n/a	9/30/2020	0.041	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-7	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-8	0.24	n/a	10/1/2020	0.052	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-9	0.24	n/a	10/1/2020	0.045	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-10	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-15	0.013	n/a	9/29/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-18	0.013	n/a	9/30/2020	0.0002J	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-8	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-9	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-15	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-16	0.034	n/a	9/29/2020	0.0025J	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-7	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-9	0.034	n/a	10/1/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-15	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-16	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2

Appendix III - Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:23 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**9/30/2020**	**2.6**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**10/1/2020**	**1.2**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-15**	**6.94**	**5.58**	**9/29/2020**	**7.11**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-16**	**6.94**	**5.58**	**9/29/2020**	**5.5**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**

Appendix III - Interwell Prediction Limits - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:22 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-10	0.68	n/a	10/1/2020	0.082	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-15	0.68	n/a	9/29/2020	0.08ND	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-16	0.68	n/a	9/29/2020	0.081	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-17	0.68	n/a	9/29/2020	0.045J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**9/30/2020**	**2.6**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	ARGWC-7	0.68	n/a	9/29/2020	0.078J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**10/1/2020**	**1.2**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	ARGWC-9	0.68	n/a	10/1/2020	0.041J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-10	190	n/a	10/1/2020	8.1	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-15	190	n/a	9/29/2020	25	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-16	190	n/a	9/29/2020	39	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-17	190	n/a	9/29/2020	12	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-18	190	n/a	9/30/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-7	190	n/a	9/29/2020	11	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-8	190	n/a	10/1/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-9	190	n/a	10/1/2020	5.7	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-10	15.1	n/a	10/1/2020	3.9	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-15	15.1	n/a	9/29/2020	2.5	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-16	15.1	n/a	9/29/2020	5.2	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-17	15.1	n/a	9/29/2020	3.4	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-18	15.1	n/a	9/30/2020	6.9	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-7	15.1	n/a	9/29/2020	4.1	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-8	15.1	n/a	10/1/2020	6	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-9	15.1	n/a	10/1/2020	5.5	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-10	0.53	n/a	10/1/2020	0.048J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-15	0.53	n/a	9/29/2020	0.089J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-16	0.53	n/a	9/29/2020	0.026J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-17	0.53	n/a	9/29/2020	0.029J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-18	0.53	n/a	9/30/2020	0.082J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-7	0.53	n/a	9/29/2020	0.027J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-8	0.53	n/a	10/1/2020	0.14	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-9	0.53	n/a	10/1/2020	0.041J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-10	6.94	5.58	10/1/2020	5.83	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	**ARGWC-15**	**6.94**	**5.58**	**9/29/2020**	**7.11**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-16**	**6.94**	**5.58**	**9/29/2020**	**5.5**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**
pH (SU)	ARGWC-17	6.94	5.58	9/29/2020	5.75	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-18	6.94	5.58	9/30/2020	5.98	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-7	6.94	5.58	9/29/2020	5.92	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-8	6.94	5.58	10/1/2020	6.44	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-9	6.94	5.58	10/1/2020	5.78	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-10	950	n/a	10/1/2020	0.5ND	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-15	950	n/a	9/29/2020	7.7	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-16	950	n/a	9/29/2020	200	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-17	950	n/a	9/29/2020	66	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-18	950	n/a	9/30/2020	170	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-7	950	n/a	9/29/2020	38	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-8	950	n/a	10/1/2020	57	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-9	950	n/a	10/1/2020	0.82J	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-10	1500	n/a	10/1/2020	93	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-15	1500	n/a	9/29/2020	130	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-16	1500	n/a	9/29/2020	340	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-17	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-18	1500	n/a	9/30/2020	390	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-7	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-8	1500	n/a	10/1/2020	270	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-9	1500	n/a	10/1/2020	55	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	ARGWA-12 (bg)	0.01037	28	43	No	13	46.15	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-13 (bg)	0.06799	39	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-14 (bg)	0.001283	11	43	No	13	15.38	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-3 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-5 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-18	0	-2	-43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-8	-0.03615	-25	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-12 (bg)	-0.003694	-5	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-13 (bg)	0.009035	10	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-14 (bg)	-0.03435	-21	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-3 (bg)	0.004239	5	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-5 (bg)	0.01479	10	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-15	0.05281	34	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-16	-0.009419	-8	-53	No	15	0	n/a	n/a	0.01	NP

Upper Tolerance Limit Summary Table

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 1:26 PM

Constituent	Upper Lim.	Lower Lim.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.002	n/a	n/a	60	n/a	n/a	96.67	n/a	n/a	0.04607	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	186	n/a	n/a	79.57	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.24	n/a	n/a	182	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.0025	n/a	n/a	65	n/a	n/a	95.38	n/a	n/a	0.03565	NP Inter(NDs)
Cadmium (mg/L)	0.0043	n/a	n/a	178	n/a	n/a	93.82	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	65	n/a	n/a	56.92	n/a	n/a	0.03565	NP Inter(NDs)
Cobalt (mg/L)	0.0025	n/a	n/a	70	n/a	n/a	82.86	n/a	n/a	0.02758	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.066	n/a	n/a	65	0.4287	0.3187	0	None	No	0.05	Inter
Fluoride (mg/L)	0.53	n/a	n/a	75	n/a	n/a	41.33	n/a	n/a	0.02134	NP Inter(normality)
Lead (mg/L)	0.013	n/a	n/a	184	n/a	n/a	88.04	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.0099	n/a	n/a	69	n/a	n/a	43.48	n/a	n/a	0.02904	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	55	n/a	n/a	94.55	n/a	n/a	0.05954	NP Inter(NDs)
Molybdenum (mg/L)	0.015	n/a	n/a	70	n/a	n/a	90	n/a	n/a	0.02758	NP Inter(NDs)
Selenium (mg/L)	0.034	n/a	n/a	175	n/a	n/a	82.29	n/a	n/a	NaN	NP Inter(NDs)
Silver (mg/L)	0.0051	n/a	n/a	154	n/a	n/a	93.51	n/a	n/a	0.0003711	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	65	n/a	n/a	89.23	n/a	n/a	0.03565	NP Inter(NDs)

PLANT ARKWRIGHT LF #3 GWPS			
Constituent Name	**MCL**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006	0.002	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.24	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0043	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.0025	0.0025
Combined Radium, Total (pCi/L)	5	1.1	5
Fluoride, Total (mg/L)	4	0.53	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.0099	0.0099
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.015	0.015
Selenium, Total (mg/L)	0.05	0.034	0.05
Silver, Total (mg/L)	n/a	0.0051	0.0051
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

Confidence Intervals Summary - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	**ARAMW-4**	**0.007045**	**0.003405**	**0.0025**	**Yes**	**4**	**0.005225**	**0.0008016**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**ARGWC-17**	**0.02709**	**0.01782**	**0.0025**	**Yes**	**14**	**0.02246**	**0.006545**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**ARGWC-8**	**0.04392**	**0.0369**	**0.015**	**Yes**	**14**	**0.04041**	**0.004953**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals Summary - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.0011	0.0004	0.01	No	15	0.001027	0.000289	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-15	0.001	0.00062	0.01	No	15	0.000932	0.0001861	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-16	0.001	0.001	0.01	No	15	0.0009493	0.000135	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-17	0.0015	0.00087	0.01	No	15	0.0009767	0.0002067	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-18	0.0016	0.00066	0.01	No	15	0.0009727	0.0002554	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-7	0.0015	0.00078	0.01	No	15	0.001019	0.0001447	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-8	0.0014	0.00072	0.01	No	15	0.0009407	0.0002287	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-9	0.0011	0.00051	0.01	No	15	0.000974	0.0001309	86.67	None	No	0.01	NP (NDs)
Barium (mg/L)	ARGWC-10	0.03345	0.03009	2	No	15	0.03177	0.002478	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-15	0.038	0.028	2	No	15	0.03412	0.01164	0	None	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-16	0.05553	0.04603	2	No	15	0.05078	0.007013	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-17	0.051	0.04295	2	No	15	0.04697	0.005943	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-18	0.03941	0.03485	2	No	15	0.03713	0.003363	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-7	0.04072	0.03444	2	No	15	0.03758	0.004637	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-8	0.04917	0.04274	2	No	15	0.04595	0.004741	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-9	0.04871	0.04375	2	No	15	0.04623	0.003659	0	None	No	0.01	Param.
Beryllium (mg/L)	ARGWC-16	0.0025	0.00027	0.004	No	13	0.002328	0.0006185	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-17	0.0025	0.00025	0.004	No	13	0.001353	0.001113	46.15	None	No	0.01	NP (normality)
Beryllium (mg/L)	ARGWC-18	0.0025	0.00034	0.004	No	13	0.002334	0.0005991	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-7	0.0025	0.00041	0.004	No	13	0.002155	0.0008454	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-8	0.0025	0.00047	0.004	No	13	0.002344	0.000563	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-9	0.0025	0.00037	0.004	No	13	0.002336	0.0005908	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-10	0.005569	0.004328	0.1	No	13	0.004962	0.000878	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	ARGWC-15	0.0087	0.0017	0.1	No	13	0.002492	0.001867	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-16	0.002247	0.00163	0.1	No	13	0.001938	0.0004154	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-17	0.0021	0.0016	0.1	No	13	0.001923	0.0002204	76.92	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-7	0.003841	0.003021	0.1	No	13	0.003431	0.0005513	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-8	0.002	0.0017	0.1	No	13	0.001938	0.0001557	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-9	0.0105	0.008427	0.1	No	13	0.009462	0.001391	0	None	No	0.01	Param.
Cobalt (mg/L)	**ARAMW-4**	**0.007045**	**0.003405**	**0.0025**	**Yes**	**4**	**0.005225**	**0.0008016**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	ARGWC-10	0.0025	0.00017	0.0025	No	14	0.001831	0.001097	71.43	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-15	0.001959	0.0002239	0.0025	No	14	0.004064	0.007983	28.57	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-16	0.0025	0.00026	0.0025	No	14	0.002004	0.0009868	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	**ARGWC-17**	**0.02709**	**0.01782**	**0.0025**	**Yes**	**14**	**0.02246**	**0.006545**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	ARGWC-18	0.001567	0.001133	0.0025	No	14	0.00135	0.0003061	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-7	0.0025	0.00034	0.0025	No	14	0.002173	0.000832	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-8	0.0025	0.00017	0.0025	No	14	0.001526	0.001169	57.14	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-9	0.0025	0.00021	0.0025	No	14	0.001999	0.0009951	78.57	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	ARGWC-10	0.316	-0.02493	5	No	13	0.1455	0.2292	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-15	2.11	0.276	5	No	13	0.7041	0.7117	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-16	0.79	-0.0245	5	No	13	0.4041	0.4201	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-17	0.722	0.1139	5	No	13	0.418	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-18	0.5631	0.1903	5	No	13	0.3767	0.2506	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-7	0.4682	0.1939	5	No	13	0.331	0.1844	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-8	0.4083	0.1359	5	No	13	0.2721	0.1832	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-9	0.4137	0.1008	5	No	13	0.2573	0.2104	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-10	0.1	0.047	4	No	15	0.07927	0.02754	53.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-15	0.21	0.081	4	No	15	0.1236	0.07232	26.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-16	0.1	0.033	4	No	15	0.07727	0.03119	60	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-17	0.1	0.031	4	No	15	0.08153	0.02951	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-18	0.09978	0.07722	4	No	14	0.0885	0.01592	7.143	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-7	0.1	0.032	4	No	15	0.08273	0.03085	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-8	0.1419	0.1007	4	No	14	0.1213	0.02911	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-9	0.2	0.038	4	No	15	0.0868	0.04317	60	None	No	0.01	NP (NDs)

Confidence Intervals Summary - All Results

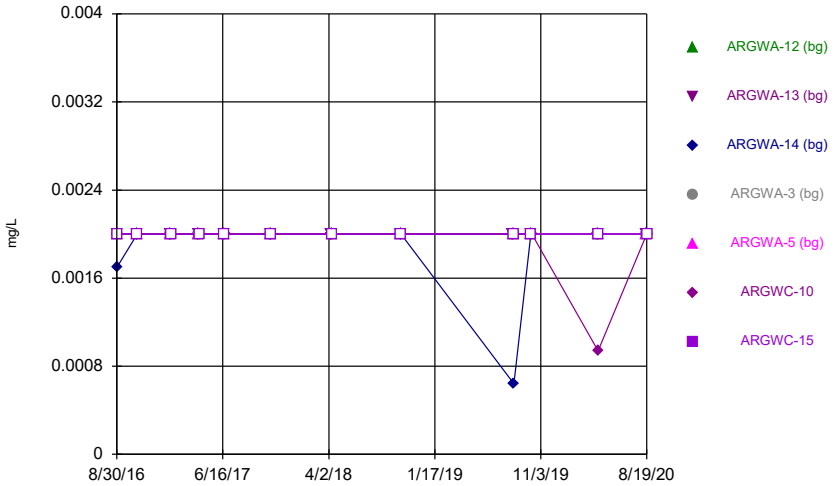
Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	ARGWC-10	0.031	0.00013	0.013	No	15	0.002942	0.007765	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-15	0.0016	0.0003	0.013	No	15	0.0013	0.001215	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-18	0.001	0.00028	0.013	No	15	0.0008453	0.0003207	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-8	0.001	0.00019	0.013	No	15	0.000946	0.0002091	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-9	0.001	0.00016	0.013	No	15	0.000944	0.0002169	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-10	0.0055	0.0015	0.0099	No	14	0.004507	0.001367	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-15	0.005	0.0029	0.0099	No	14	0.004493	0.0008462	64.29	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-16	0.0076	0.0031	0.0099	No	14	0.004807	0.001283	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-17	0.0071	0.0023	0.0099	No	14	0.0047	0.001342	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-18	0.0062	0.0036	0.0099	No	14	0.005093	0.002402	14.29	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-7	0.005	0.0033	0.0099	No	14	0.004607	0.00145	42.86	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-8	0.004517	0.002906	0.0099	No	14	0.004443	0.001204	35.71	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	ARGWC-9	0.0061	0.005	0.0099	No	14	0.005079	0.000294	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-3	0.01004	0.0009593	0.015	No	4	0.0055	0.002	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-6	0.015	0.00065	0.015	No	4	0.01141	0.007175	75	None	No	0.0625	NP (NDs)
Molybdenum (mg/L)	ARGWC-15	0.015	0.00097	0.015	No	14	0.00717	0.007044	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	**ARGWC-8**	**0.04392**	**0.0369**	**0.015**	**Yes**	**14**	**0.04041**	**0.004953**	**0**	**None**	**No**	**0.01**	**Param.**
Selenium (mg/L)	ARGWC-15	0.005	0.0005	0.05	No	15	0.004089	0.001885	80	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-16	0.002317	0.001045	0.05	No	15	0.001745	0.001103	6.667	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	ARGWC-7	0.005	0.00029	0.05	No	15	0.004686	0.001216	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-9	0.005	0.00029	0.05	No	15	0.004369	0.001666	86.67	None	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-15	0.001	0.00037	0.0051	No	10	0.000855	0.0003089	80	None	No	0.011	NP (NDs)
Silver (mg/L)	ARGWC-16	0.001	0.001	0.0051	No	10	0.000926	0.000234	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	ARGWC-15	0.001	0.000095	0.002	No	13	0.0009304	0.000251	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-16	0.001	0.00027	0.002	No	13	0.0008862	0.0002779	84.62	None	No	0.01	NP (NDs)

FIGURE A.

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

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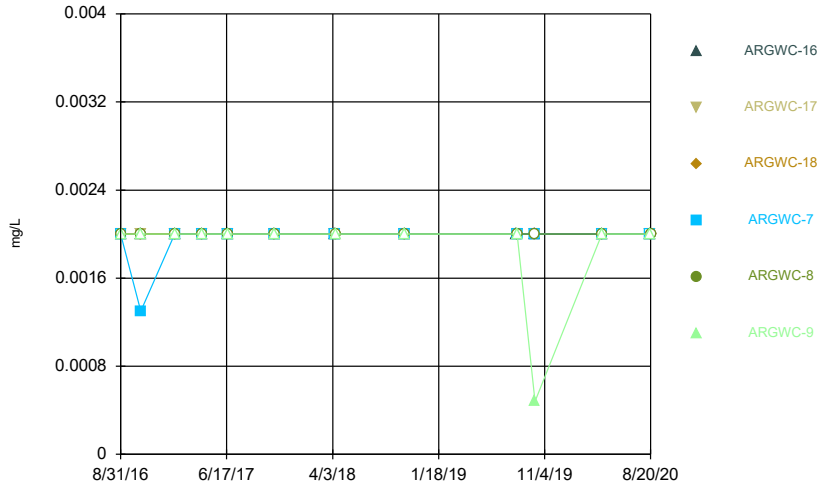

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Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
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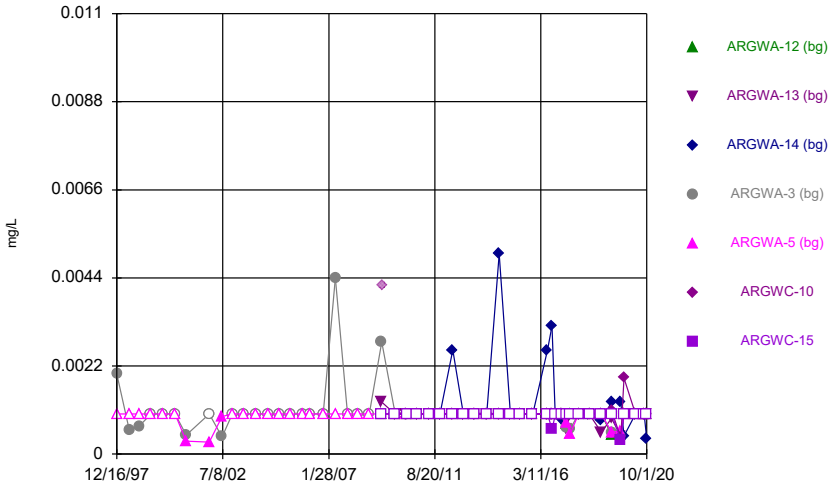
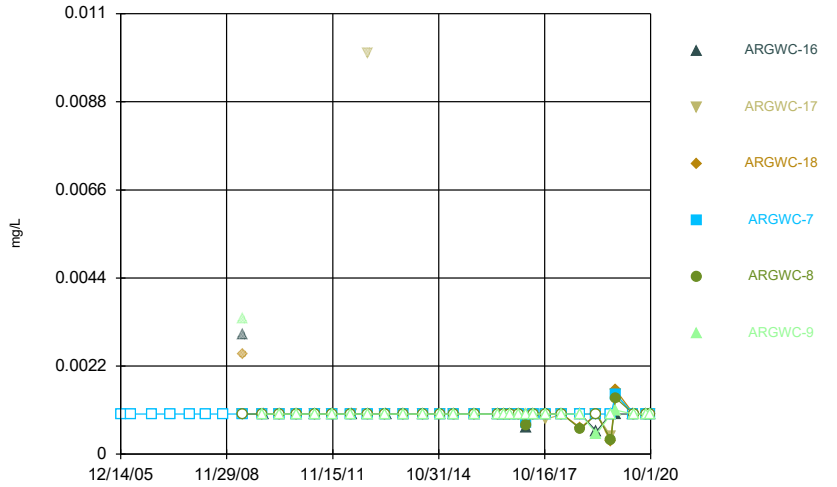


Constituent: Arsenic Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

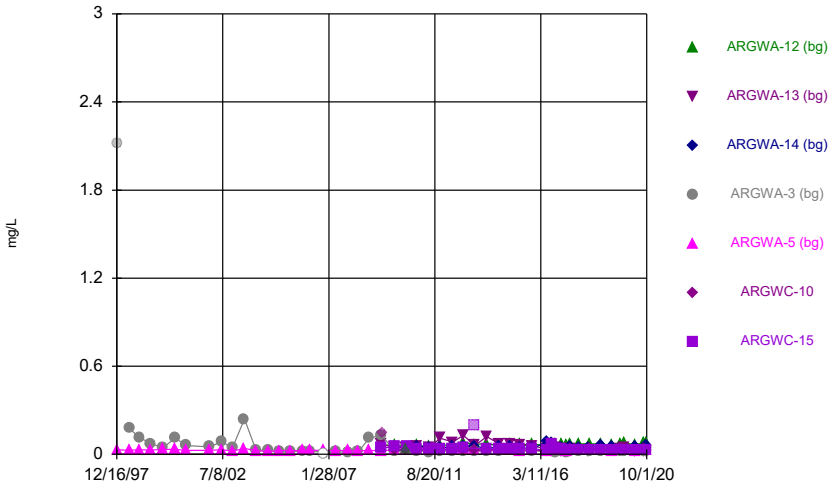
Time Series



Constituent: Arsenic Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

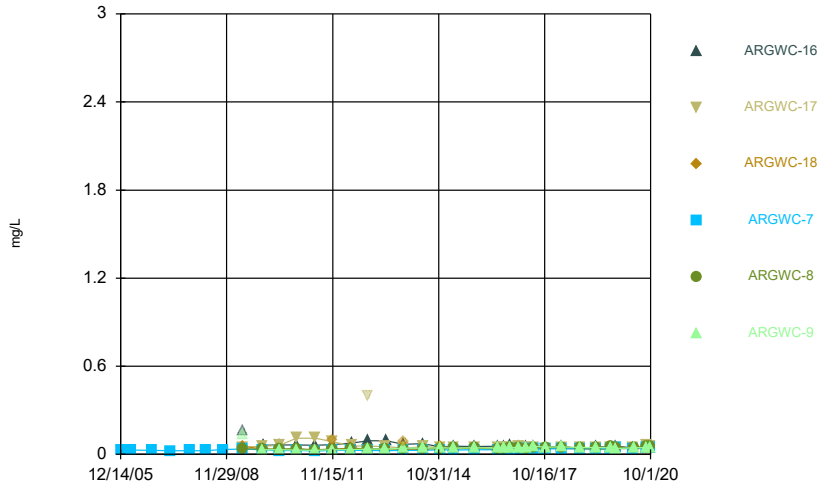
Time Series



Constituent: Barium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



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Plant Arkwright Client: Southern Company Data: Arkwright No 3

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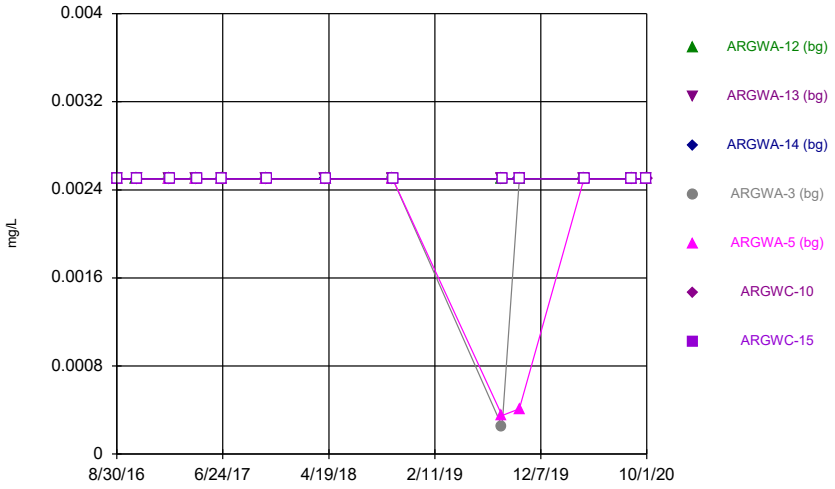
Hollow symbols indicate censored values.

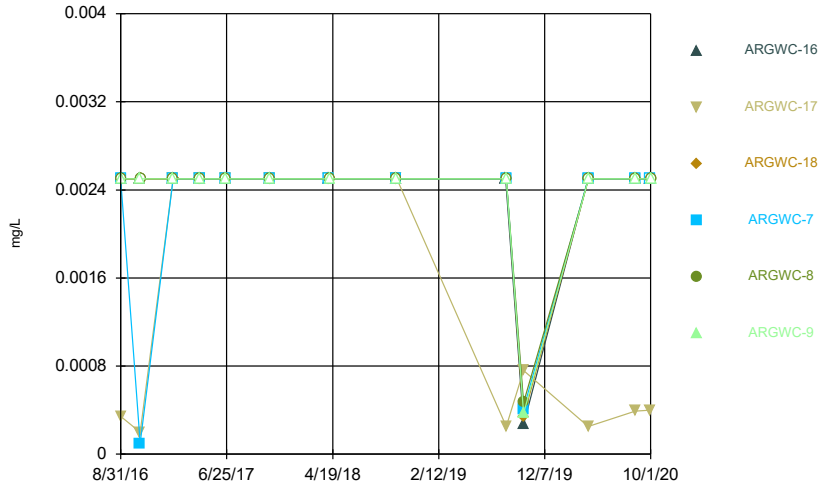
Time Series



Constituent: Beryllium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

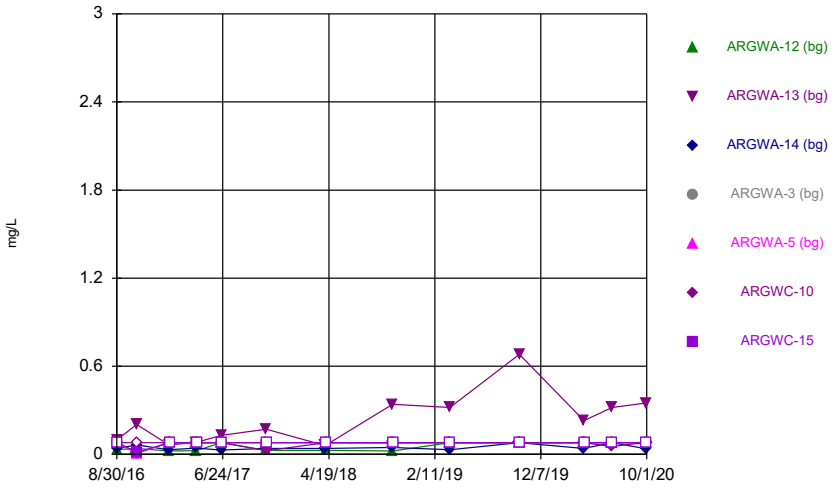
Time Series



Constituent: Beryllium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

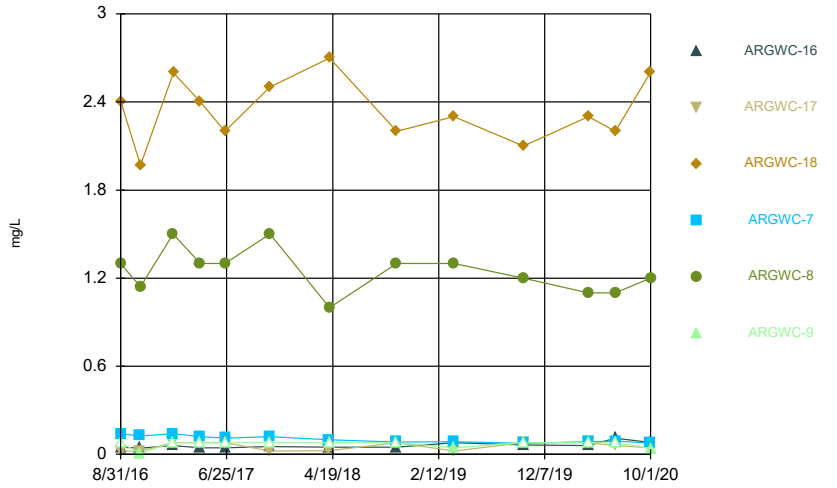
Time Series



Constituent: Boron Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

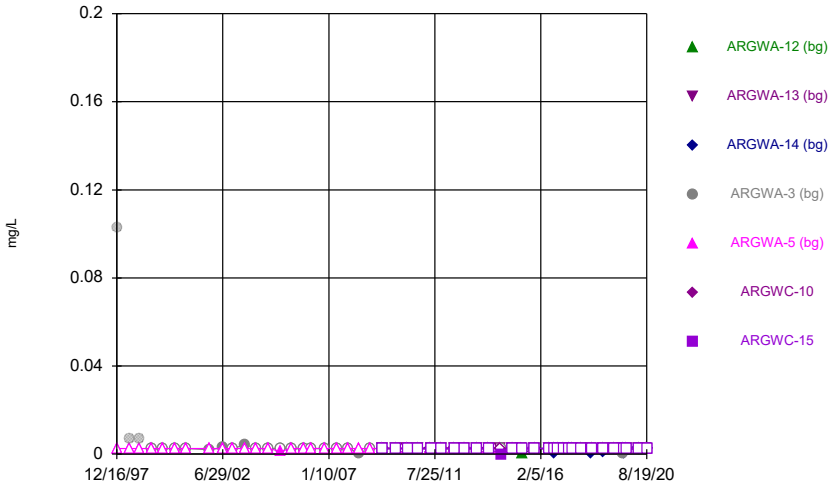
Time Series



Constituent: Boron Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

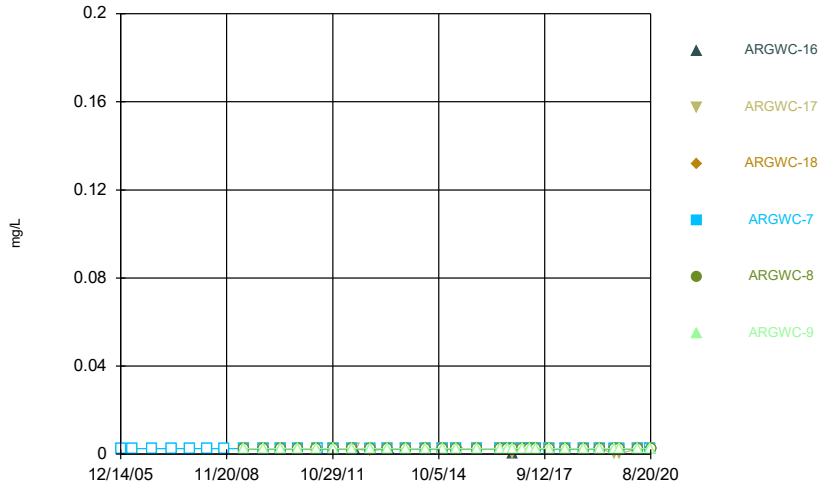
Time Series



Constituent: Cadmium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

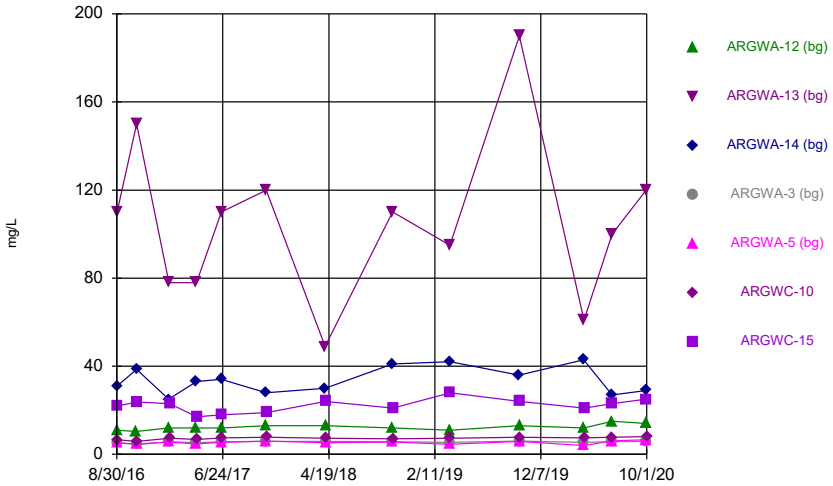
Time Series



Constituent: Cadmium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

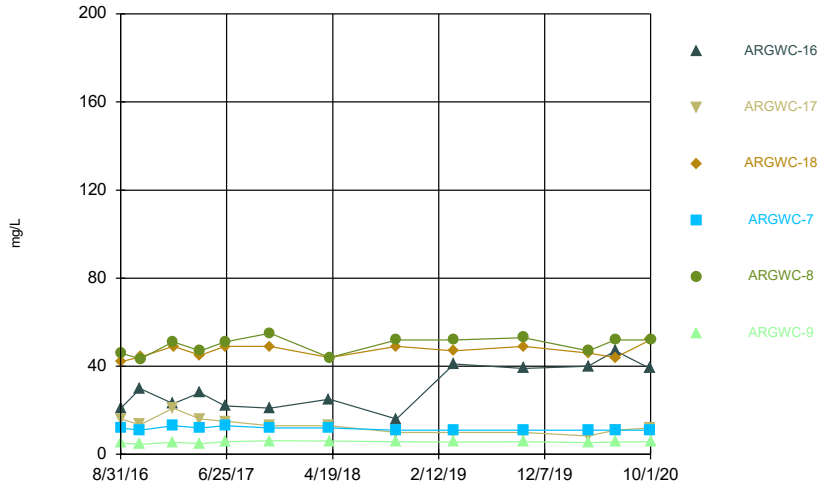


Constituent: Calcium Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



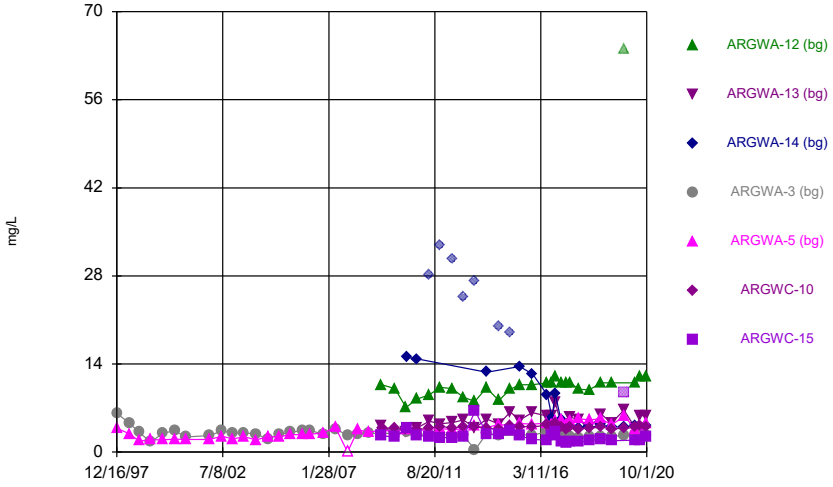
Constituent: Calcium Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



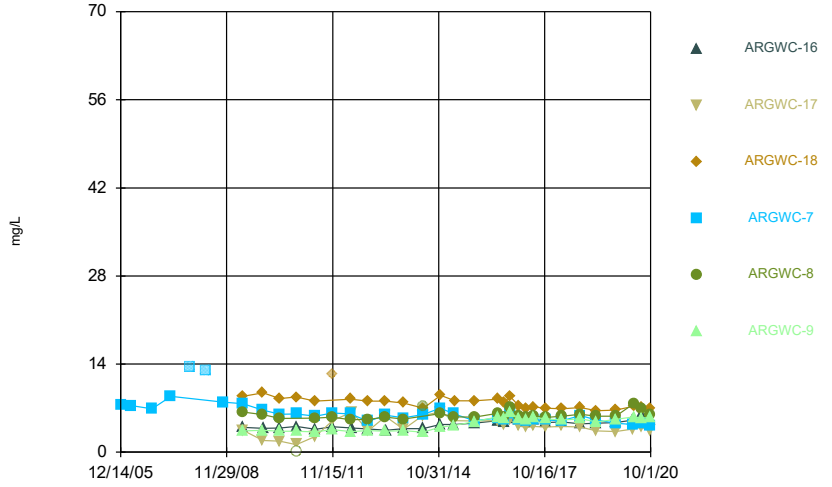
Constituent: Chloride Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

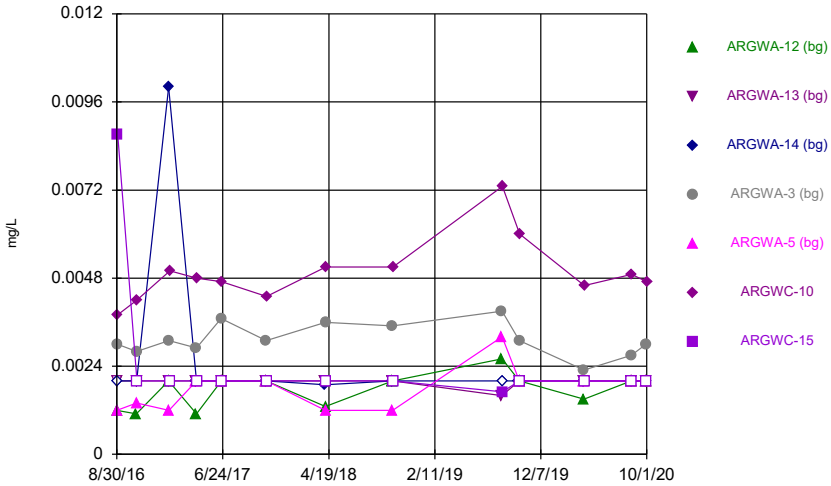


Constituent: Chloride Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

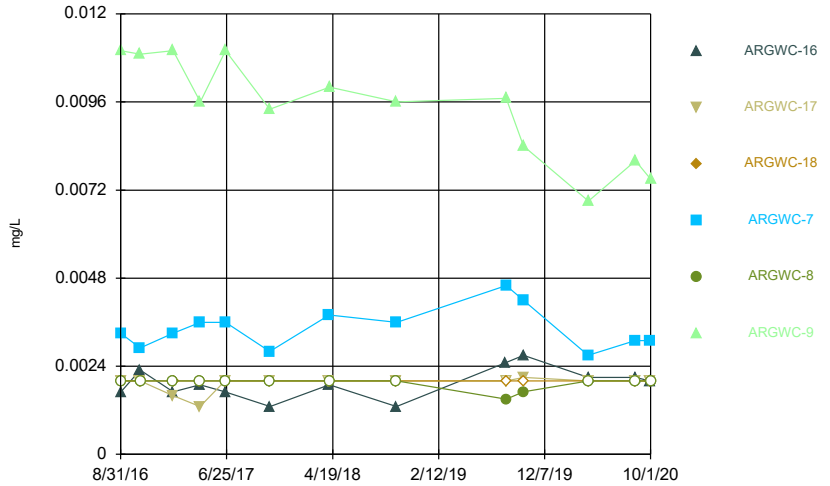
Time Series



Constituent: Chromium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

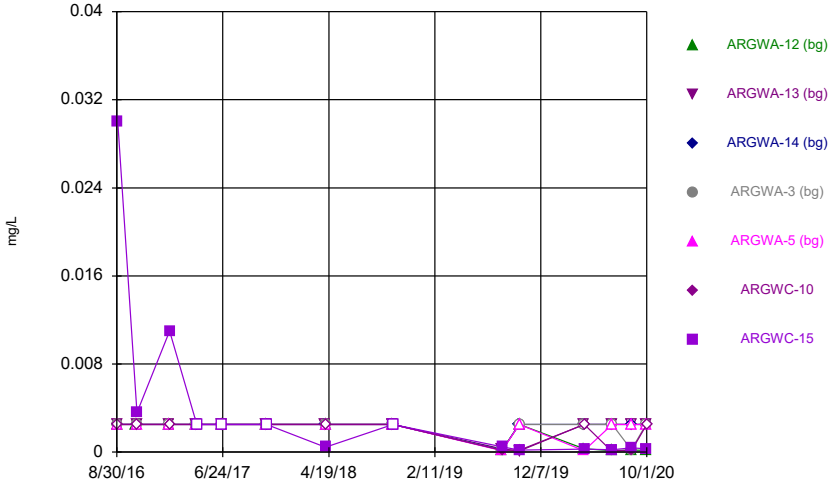
Time Series



Constituent: Chromium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

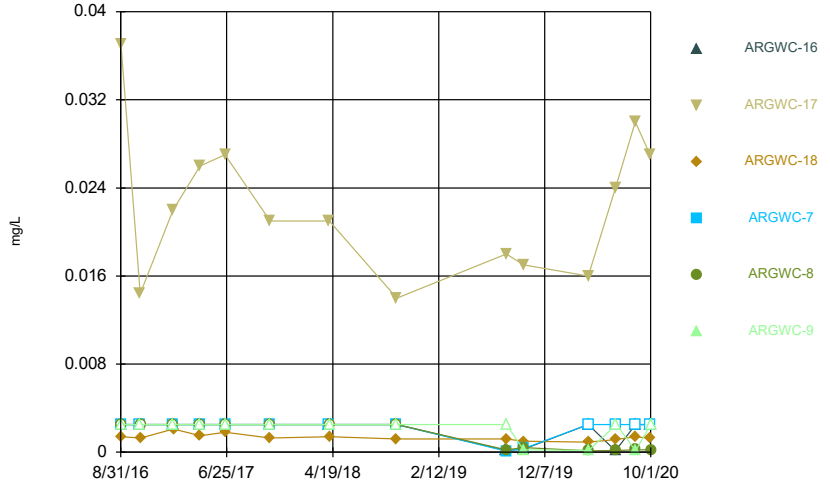
Time Series



Constituent: Cobalt Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

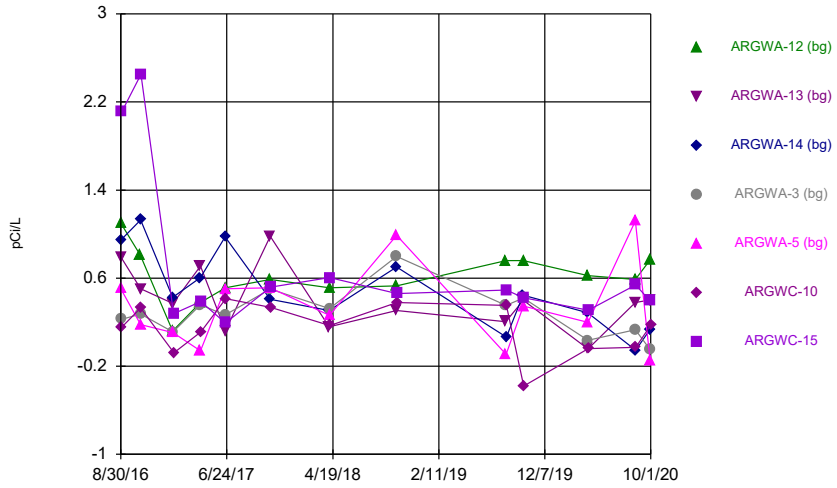
Time Series



Constituent: Cobalt Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

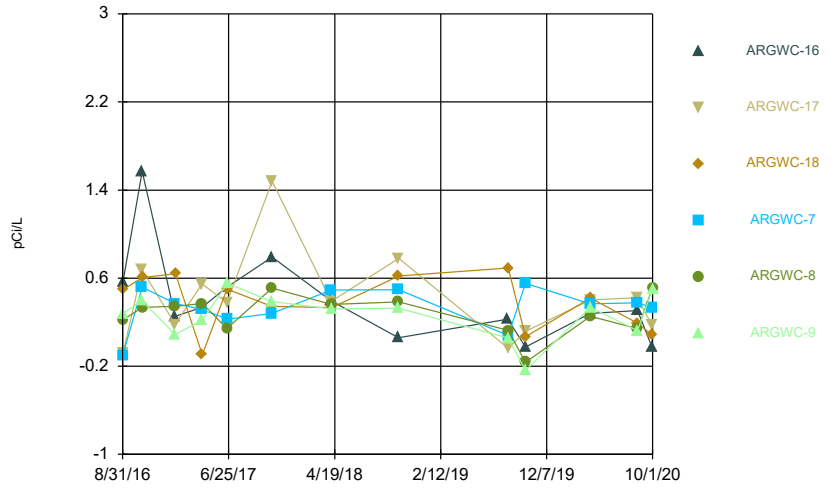


Constituent: Combined Radium 226 + 228 Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



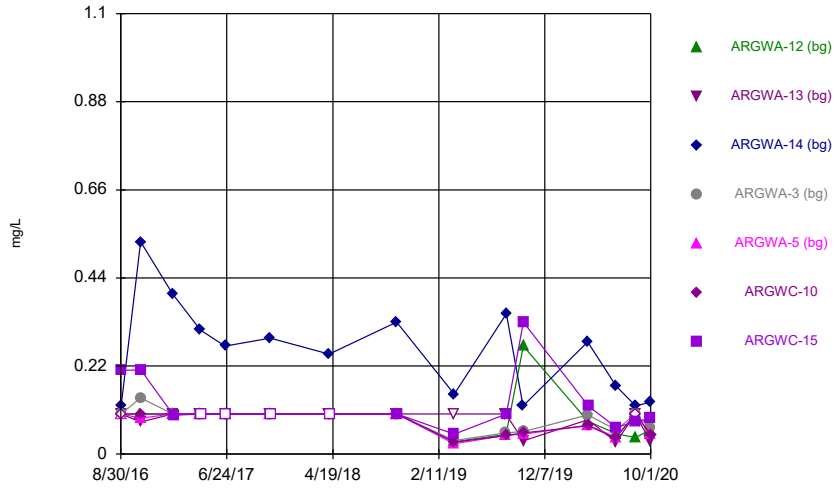
Constituent: Combined Radium 226 + 228 Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



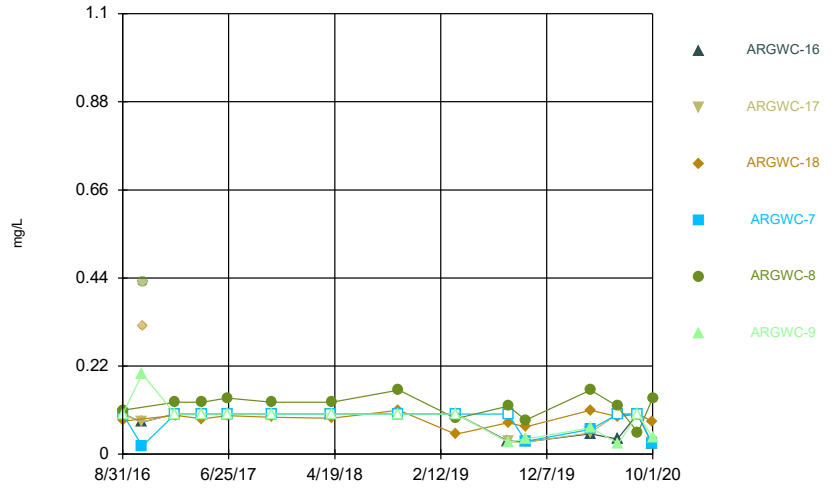
Constituent: Fluoride Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

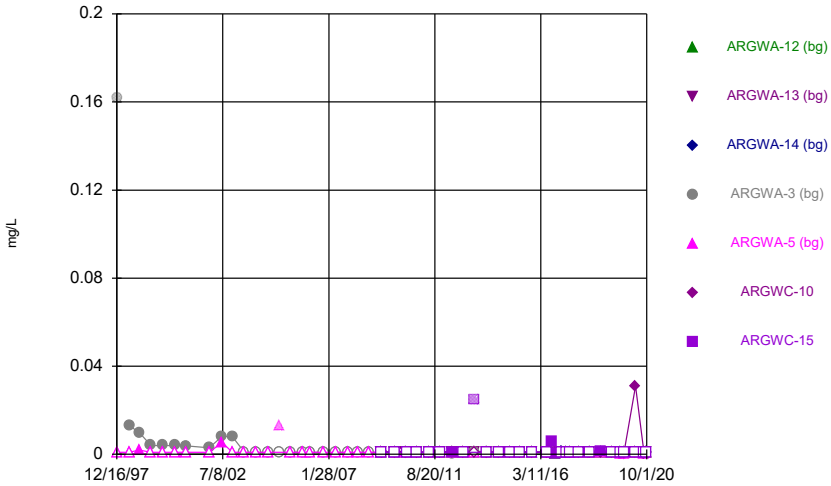


Constituent: Fluoride Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

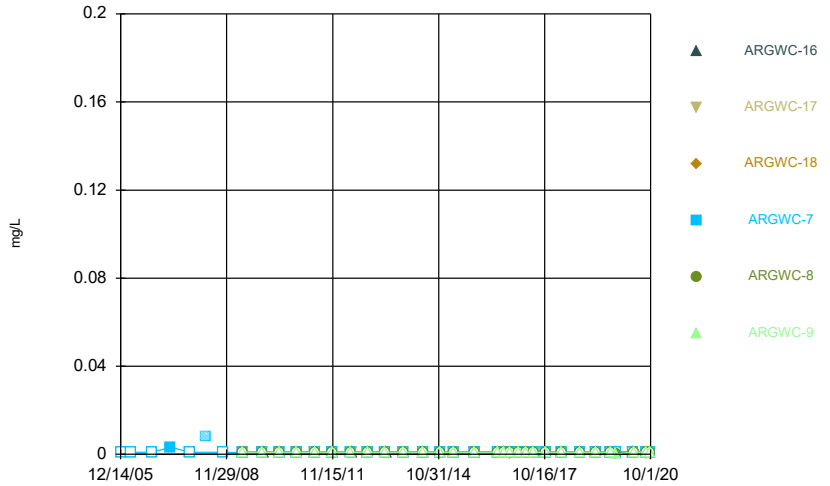
Time Series



Constituent: Lead Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

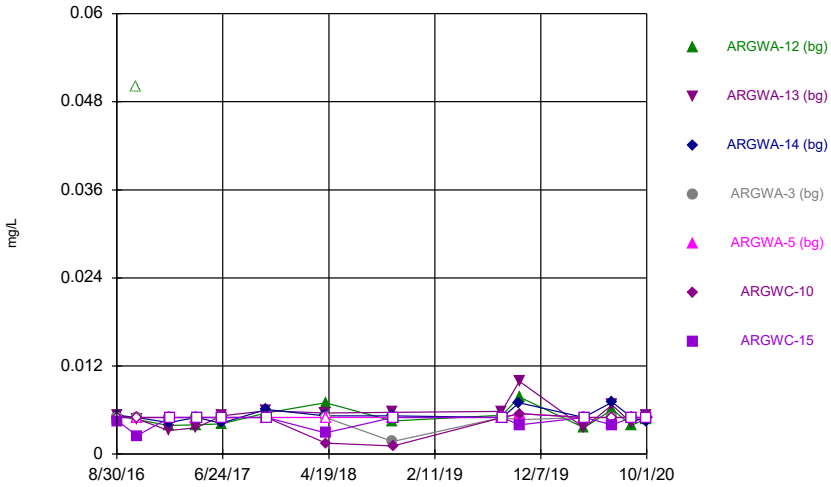
Time Series



Constituent: Lead Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

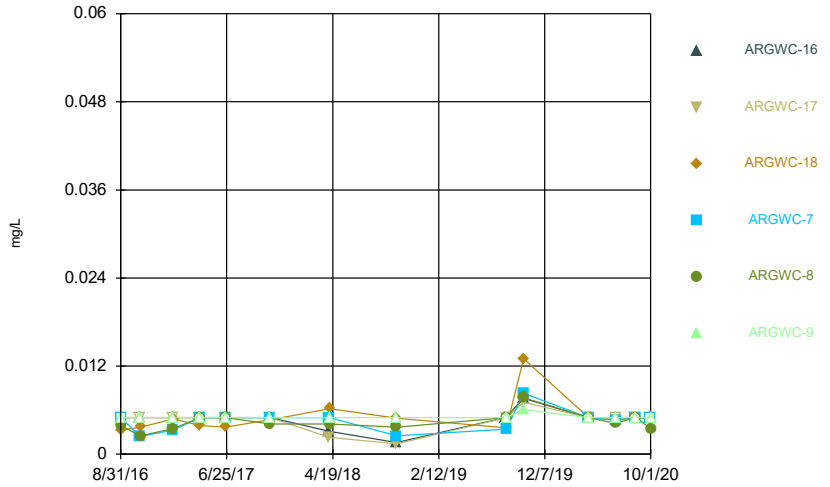
Time Series



Constituent: Lithium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

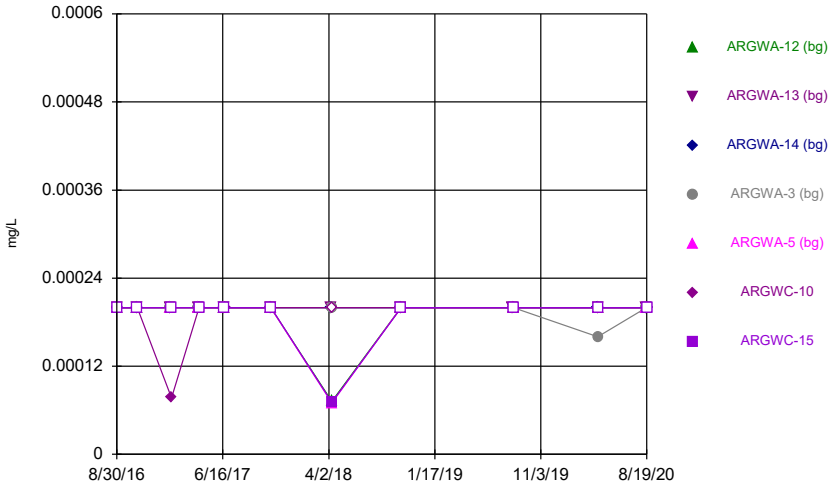
Time Series



Constituent: Lithium Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

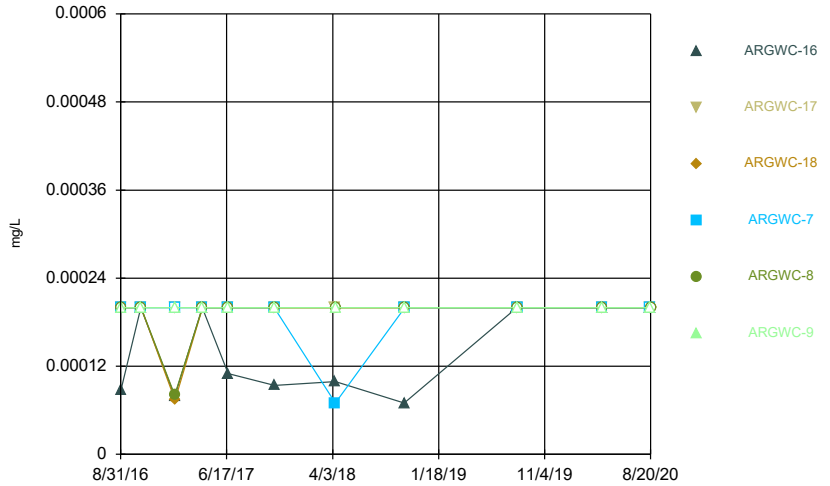
Time Series



Constituent: Mercury Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

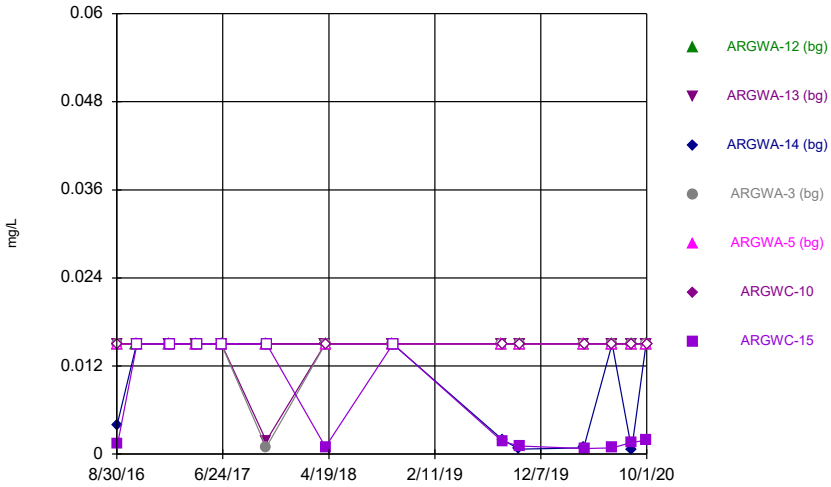
Time Series



Constituent: Mercury Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

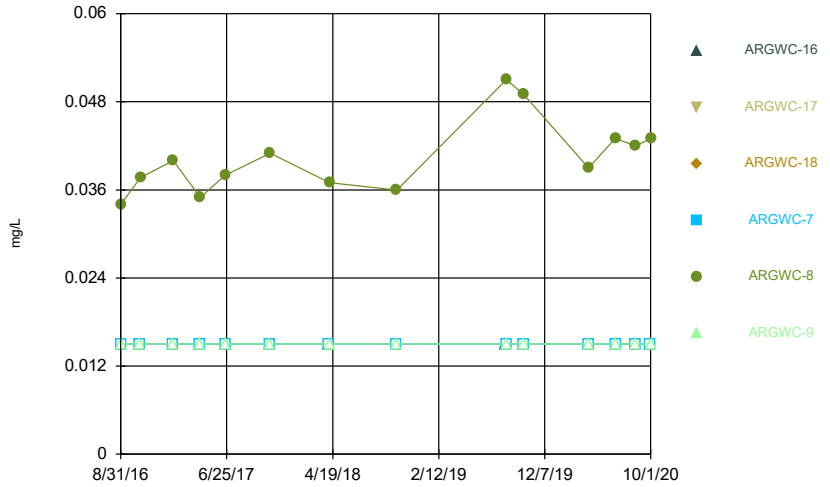
Time Series



Constituent: Molybdenum Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

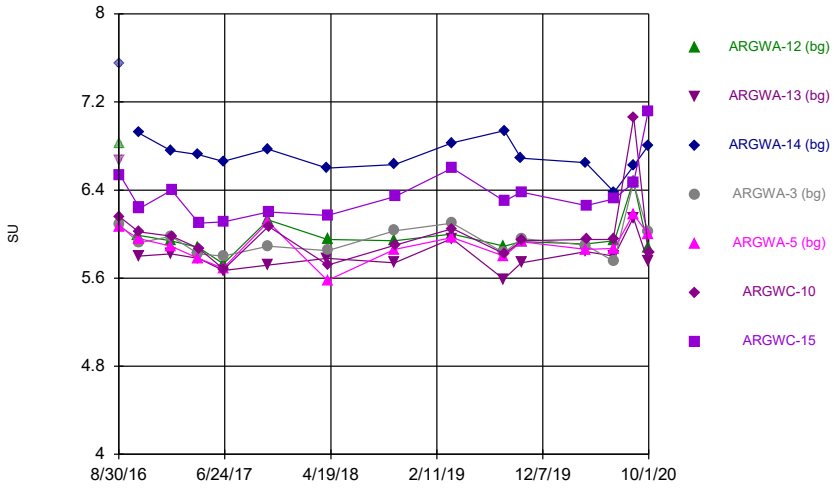
Time Series



Constituent: Molybdenum Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

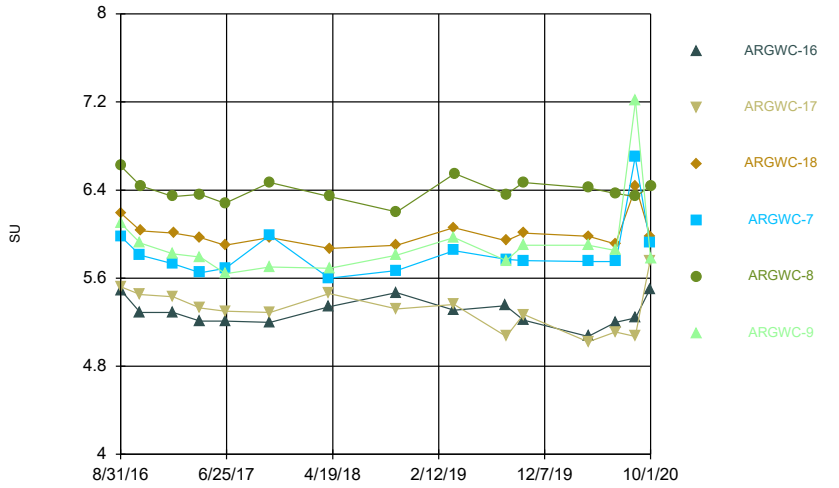


Constituent: pH Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



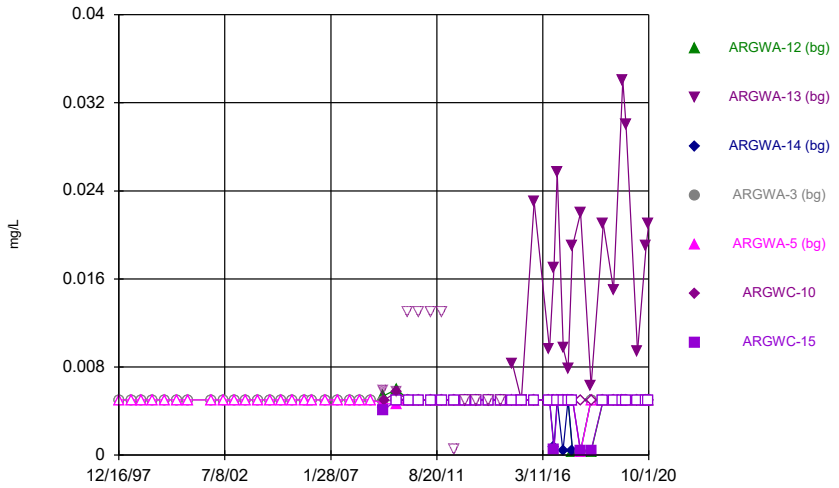
Constituent: pH Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



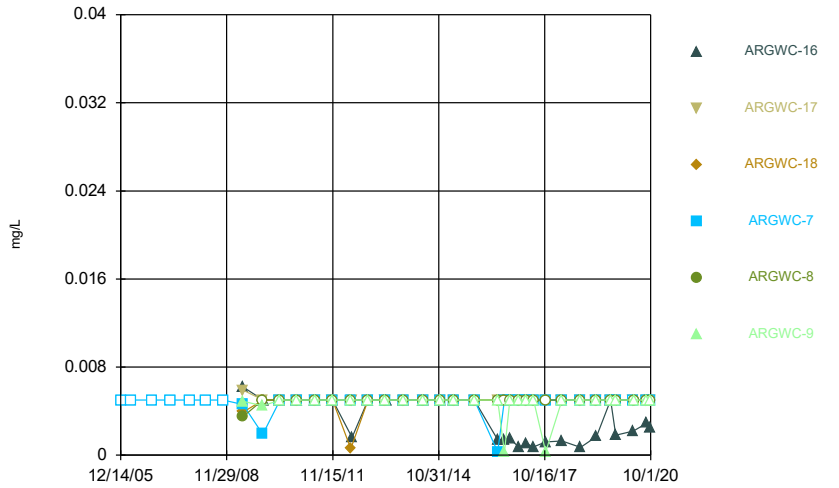
Constituent: Selenium Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series

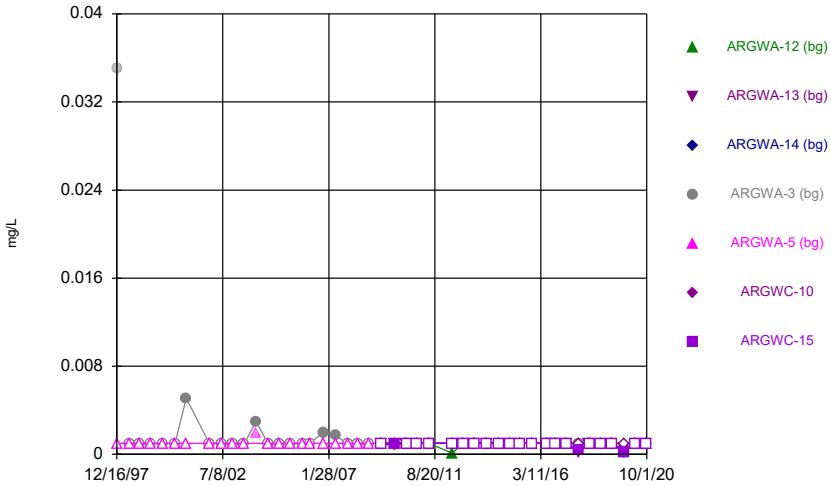


Constituent: Selenium Analysis Run 12/3/2020 1:20 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

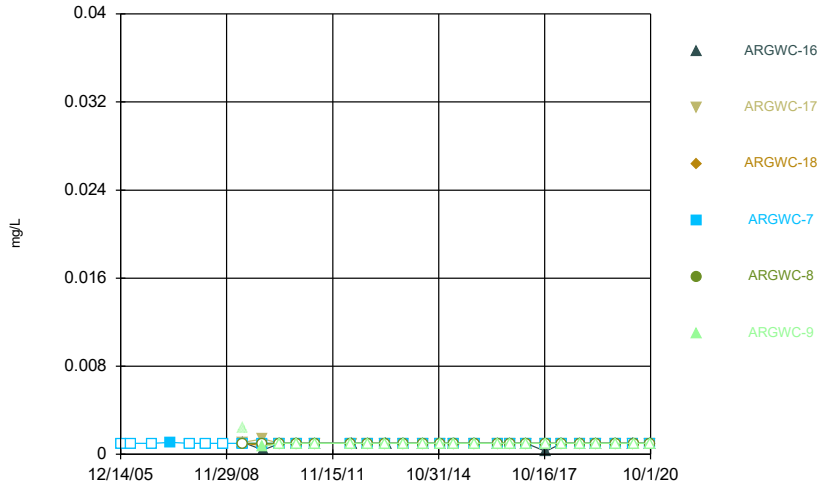
Time Series



Constituent: Silver Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

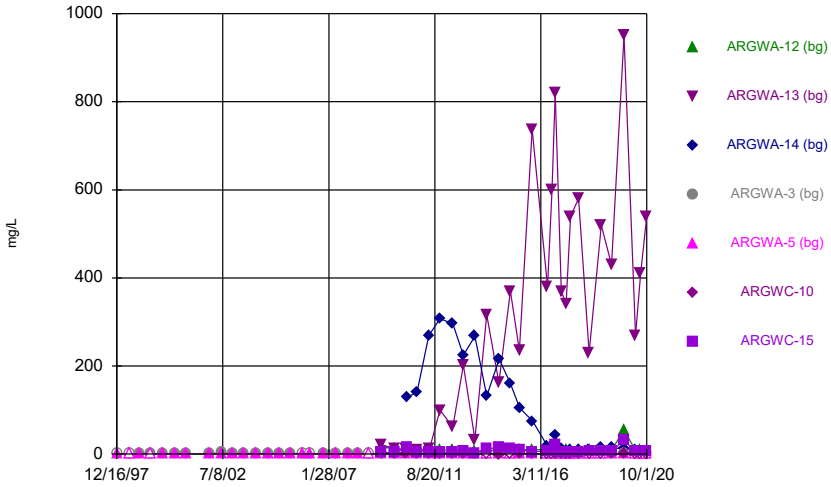
Time Series



Constituent: Silver Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

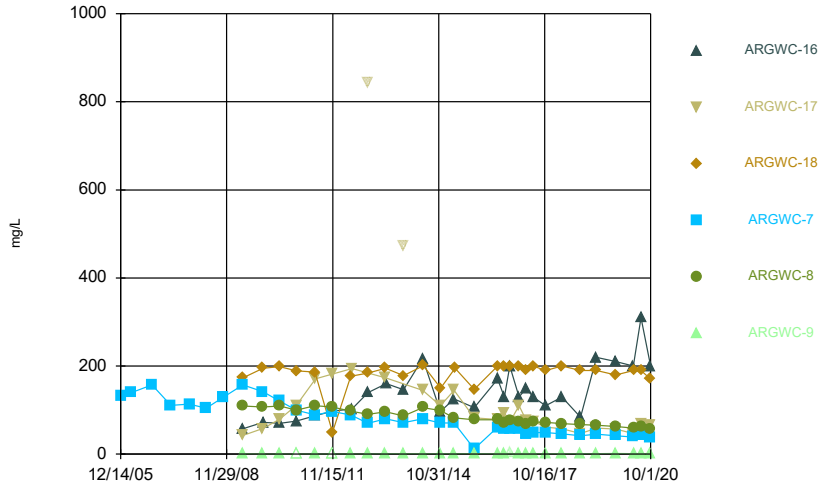
Time Series



Constituent: Sulfate Analysis Run 12/3/2020 1:20 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

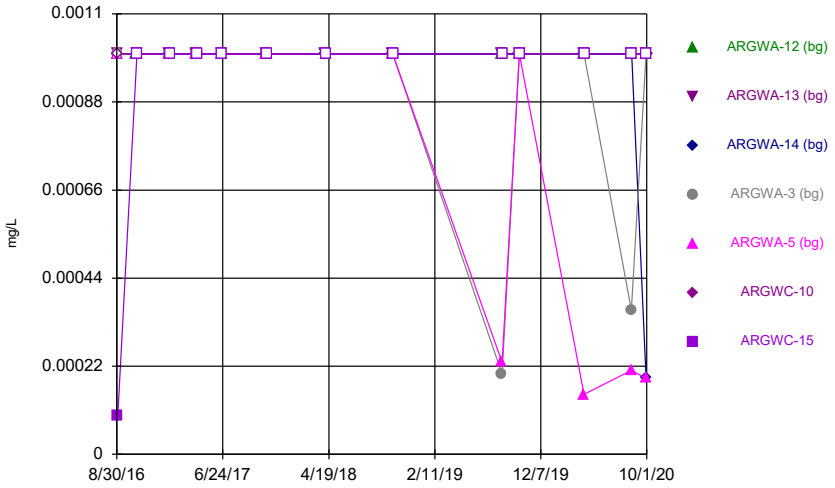
Time Series



Constituent: Sulfate Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

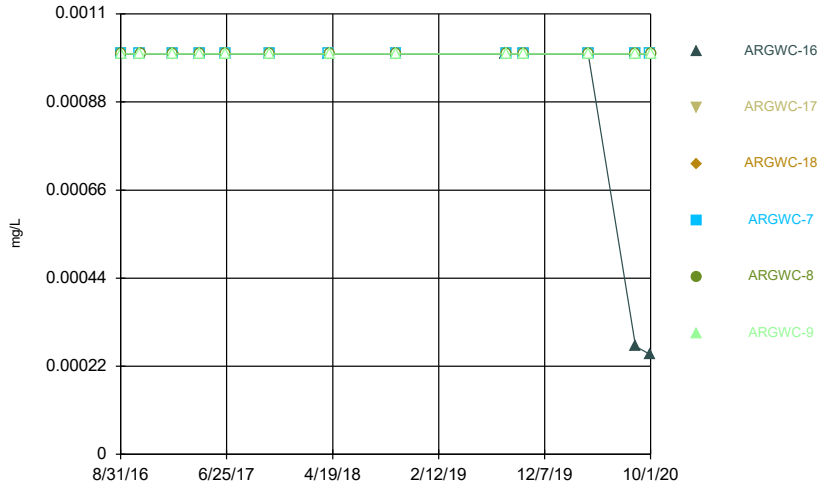
Time Series



Constituent: Thallium Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

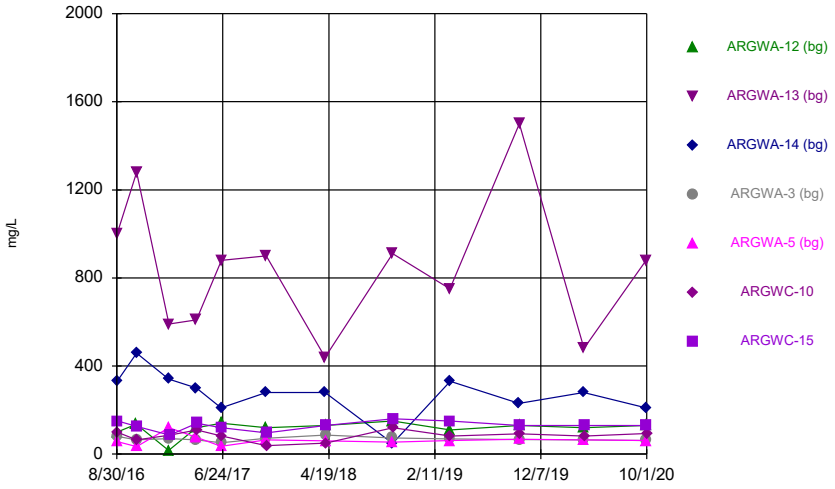
Time Series



Constituent: Thallium Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

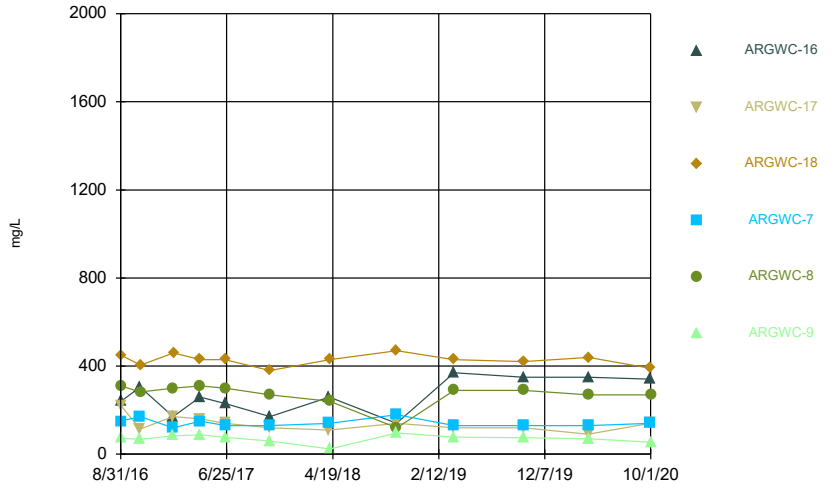
Time Series



Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:21 PM
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.002				<0.002		
8/31/2016		<0.002	0.0017 (J)	<0.002			
9/1/2016						<0.002	
9/2/2016							<0.002
10/24/2016	<0.002						
10/25/2016		<0.002	<0.002	<0.002	<0.002	<0.002	
10/26/2016							<0.002
1/23/2017	<0.002		<0.002				
1/24/2017		<0.002		<0.002	<0.002		
1/26/2017							<0.002
1/27/2017						<0.002	
4/11/2017	<0.002	<0.002	<0.002	<0.002	<0.002		
4/12/2017						<0.002	<0.002
6/20/2017			<0.002	<0.002	<0.002		
6/21/2017	<0.002	<0.002					<0.002
6/22/2017						<0.002	
10/25/2017	<0.002	<0.002	<0.002	<0.002	<0.002		
10/26/2017						<0.002	<0.002
4/9/2018		<0.002	<0.002				
4/10/2018	<0.002			<0.002	<0.002		<0.002
4/11/2018						<0.002	
10/16/2018	<0.002	<0.002	<0.002	<0.002	<0.002		
10/17/2018						<0.002	<0.002
8/19/2019		<0.002					
8/20/2019	<0.002			<0.002	<0.002		
8/21/2019			0.00064 (J)			<0.002	<0.002
10/7/2019			<0.002				
10/8/2019	<0.002	<0.002		<0.002	<0.002		<0.002
10/9/2019						<0.002	
4/6/2020			<0.002				
4/7/2020	<0.002	<0.002		<0.002	<0.002		
4/8/2020						0.00094 (J)	<0.002
8/18/2020	<0.002	<0.002		<0.002	<0.002		
8/19/2020			<0.002			<0.002	<0.002

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.002	<0.002	<0.002
9/1/2016	<0.002	<0.002	<0.002			
10/25/2016	<0.002	<0.002		0.0013 (J)		<0.002
10/26/2016			<0.002		<0.002	
1/26/2017	<0.002	<0.002		<0.002	<0.002	<0.002
1/27/2017			<0.002			
4/11/2017	<0.002	<0.002				
4/12/2017			<0.002	<0.002	<0.002	<0.002
6/21/2017	<0.002	<0.002	<0.002		<0.002	
6/22/2017				<0.002		<0.002
10/25/2017			<0.002	<0.002		<0.002
10/26/2017	<0.002	<0.002			<0.002	
4/10/2018	<0.002	<0.002		<0.002		
4/11/2018			<0.002		<0.002	<0.002
10/16/2018	<0.002					
10/17/2018		<0.002	<0.002	<0.002	<0.002	<0.002
8/20/2019	<0.002					
8/21/2019		<0.002	<0.002	<0.002	<0.002	<0.002
10/9/2019	<0.002	<0.002	<0.002	<0.002	<0.002	0.00048 (J)
4/8/2020	<0.002	<0.002		<0.002		
4/9/2020			<0.002		<0.002	<0.002
8/18/2020		<0.002		<0.002		
8/19/2020	<0.002					<0.002
8/20/2020			<0.002		<0.002	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.002	<0.001		
6/30/1998				0.0006	<0.001		
12/2/1998				0.0007	<0.001		
6/8/1999				<0.001	<0.001		
12/7/1999				<0.001	<0.001		
6/15/2000				<0.001	<0.001		
12/12/2000				0.000475	0.00032		
12/5/2001				<0.001	0.0003		
6/26/2002				0.000431	0.000939		
12/3/2002				<0.001	<0.001		
6/11/2003				<0.001	<0.001		
12/10/2003				<0.001	<0.001		
6/15/2004				<0.001	<0.001		
12/14/2004				<0.001	<0.001		
6/2/2005				<0.001	<0.001		
12/14/2005				<0.001	<0.001		
4/5/2006				<0.001	<0.001		
10/30/2006				<0.001	<0.001		
5/10/2007				0.0044	<0.001		
11/17/2007				<0.001	<0.001		
5/3/2008				<0.001	<0.001		
10/22/2008				<0.001	<0.001		
5/5/2009							<0.001
5/6/2009	<0.001				<0.001		
5/7/2009		0.0013		0.0028			
5/13/2009						0.0042 (o)	
12/1/2009					<0.001		
12/3/2009	<0.001	<0.001				<0.001	
12/4/2009				<0.001			<0.001
5/25/2010	<0.001	<0.001			<0.001		
5/26/2010						<0.001	
6/1/2010				<0.001			<0.001
6/2/2010			<0.001				
11/9/2010	<0.001				<0.001	<0.001	
11/10/2010		<0.001	<0.001	<0.001			<0.001
5/19/2011			<0.001			<0.001	
5/24/2011	<0.001				<0.001		
5/25/2011		<0.001		<0.001			<0.001
11/9/2011			<0.001				<0.001
11/10/2011	<0.001	<0.001			<0.001		
11/11/2011						<0.001	
11/12/2011				<0.001			
5/17/2012						<0.001	
5/18/2012	<0.001				<0.001		
5/30/2012		<0.001	0.0026 (J)				
5/31/2012				<0.001			<0.001
11/9/2012	<0.001	<0.001			<0.001	<0.001	
11/10/2012							<0.001
11/11/2012			<0.001	<0.001			
5/7/2013						<0.001	
5/8/2013	<0.001				<0.001		
5/9/2013		<0.001	<0.001				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.001			<0.001
11/6/2013	<0.001				<0.001	<0.001	
11/11/2013		<0.001	<0.001				
11/12/2013				<0.001			<0.001
5/20/2014	<0.001				<0.001	<0.001	
5/21/2014		<0.001					
5/28/2014							<0.001
5/29/2014			0.005 (J)	<0.001			
11/17/2014					<0.001		
11/18/2014	<0.001	<0.001				<0.001	
11/19/2014			<0.001				
11/20/2014							<0.001
4/7/2015		<0.001			<0.001	<0.001	
4/14/2015	<0.001		<0.001	<0.001			<0.001
10/28/2015		<0.001			<0.001	<0.001	
10/29/2015	<0.001						
11/3/2015				<0.001			<0.001
11/4/2015			<0.001				
6/23/2016	<0.001	<0.001	0.0026	<0.001	<0.001	<0.001	<0.001
8/30/2016	<0.001				<0.001		
8/31/2016		<0.001	0.0032	<0.001			
9/1/2016						<0.001	
9/2/2016							0.00062 (J)
10/24/2016	<0.001						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							<0.001
1/23/2017	<0.001		0.00088 (J)				
1/24/2017		<0.001		<0.001	<0.001		
1/26/2017							<0.001
1/27/2017						<0.001	
4/11/2017	0.00076 (J)	0.00063 (J)	0.00095 (J)	0.00067 (J)	0.00077 (J)		
4/12/2017						<0.001	<0.001
6/20/2017			0.00099 (J)	0.00064 (J)	0.00052 (J)		
6/21/2017	<0.001	<0.001					<0.001
6/22/2017						<0.001	
10/25/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
10/26/2017						<0.001	<0.001
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	0.00055 (J)	0.00083 (J)	<0.001	<0.001		
10/17/2018						<0.001	<0.001
3/26/2019		0.00089 (J)					
3/27/2019	0.00049 (J)		0.0013	0.00055 (J)	0.00055 (J)		<0.001
3/28/2019						0.0011 (J)	
8/19/2019		0.00045 (J)					
8/20/2019	0.00046 (J)			0.00045 (J)	0.00058 (J)		
8/21/2019			0.0013			0.0004 (J)	0.00036 (J)
10/7/2019			0.00045 (J)				
10/8/2019	<0.001	<0.001		<0.001	<0.001		<0.001
10/9/2019						0.0019	
4/6/2020			<0.001				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
4/7/2020	<0.001	<0.001		<0.001	<0.001		
4/8/2020						<0.001	<0.001
8/18/2020	<0.001	<0.001		<0.001	<0.001		
8/19/2020			<0.001			<0.001	<0.001
9/29/2020	<0.001	<0.001	0.00038 (J)	<0.001	<0.001		<0.001
10/1/2020						<0.001	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.001		
4/5/2006				<0.001		
10/30/2006				<0.001		
5/10/2007				<0.001		
11/17/2007				<0.001		
5/2/2008				<0.001		
10/22/2008				<0.001		
5/12/2009	0.003 (o)	<0.001	0.0025 (o)			
5/13/2009						0.0034 (o)
5/14/2009				<0.001	<0.001	
12/1/2009				<0.001		
12/3/2009					<0.001	<0.001
12/4/2009		<0.001	<0.001			
12/5/2009	<0.001					
5/25/2010		<0.001	<0.001			
5/26/2010	<0.001			<0.001	<0.001	<0.001
11/9/2010	<0.001	<0.001			<0.001	<0.001
11/10/2010			<0.001	<0.001		
5/18/2011					<0.001	
5/19/2011			<0.001			<0.001
5/24/2011	<0.001	<0.001				
5/25/2011				<0.001		
11/11/2011				<0.001	<0.001	<0.001
11/12/2011	<0.001	<0.001	<0.001			
5/17/2012			<0.001	<0.001	<0.001	<0.001
5/30/2012	<0.001	<0.001				
11/9/2012	<0.001	0.01 (o)		<0.001	<0.001	<0.001
11/10/2012			<0.001			
5/7/2013			<0.001		<0.001	<0.001
5/8/2013		<0.001		<0.001		
5/13/2013	<0.001					
11/5/2013			<0.001	<0.001	<0.001	
11/6/2013	<0.001	<0.001				<0.001
5/20/2014		<0.001				
5/21/2014	<0.001			<0.001	<0.001	<0.001
5/28/2014			<0.001			
11/17/2014	<0.001	<0.001		<0.001		
11/18/2014					<0.001	<0.001
11/19/2014			<0.001			
4/7/2015	<0.001	<0.001		<0.001	<0.001	<0.001
4/15/2015			<0.001			
10/28/2015	<0.001	<0.001		<0.001	<0.001	<0.001
10/29/2015			<0.001			
6/23/2016				<0.001	<0.001	<0.001
6/24/2016	<0.001	<0.001	<0.001			
8/31/2016				<0.001	<0.001	<0.001
9/1/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			<0.001		<0.001	
1/26/2017	<0.001	<0.001		<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	0.00067 (J)	0.00084 (J)				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.001	0.00078 (J)	0.00072 (J)	<0.001
6/21/2017	<0.001	<0.001	<0.001		<0.001	
6/22/2017				<0.001		<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	<0.001	0.00087 (J)			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					
10/17/2018		<0.001	0.00066 (J)	<0.001	0.00063 (J)	<0.001
3/27/2019			<0.001			
3/28/2019	0.00057 (J)	<0.001		<0.001	<0.001	0.00051 (J)
8/20/2019	<0.001					
8/21/2019		0.00044 (J)	0.00033 (J)	<0.001	0.00036 (J)	<0.001
10/9/2019	0.001	0.0015	0.0016	0.0015	0.0014	0.0011
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
8/18/2020		<0.001		<0.001		
8/19/2020	<0.001					<0.001
8/20/2020			<0.001		<0.001	
9/29/2020	<0.001	<0.001		<0.001		
9/30/2020			<0.001			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				2.12 (o)	0.032		
6/30/1998				0.177	0.028		
12/2/1998				0.115	0.032		
6/8/1999				0.074	0.0287		
12/7/1999				0.043	0.034		
6/15/2000				0.113	0.034		
12/12/2000				0.059	0.027		
12/5/2001				0.052	0.027		
6/26/2002				0.087	0.032		
12/3/2002				0.043	0.023		
6/11/2003				0.24	0.04		
12/10/2003				0.03	0.024		
6/15/2004				0.028	0.021		
12/14/2004				0.017	0.025		
6/2/2005				0.019	0.025		
12/14/2005				0.02	0.026		
4/5/2006				0.019	0.027		
10/30/2006				<0.001 (o)	0.027		
5/10/2007				0.017	0.024		
11/17/2007				0.015	0.026		
5/3/2008				0.017	0.022		
10/22/2008				0.11	0.027		
5/5/2009							0.042
5/6/2009	0.065				0.023		
5/7/2009		0.068		0.13			
5/13/2009						0.15 (o)	
12/1/2009					0.033		
12/3/2009	0.062	0.044				0.03	
12/4/2009				0.019			0.051
5/25/2010	0.038 (o)	0.049			0.03		
5/26/2010						0.029	
6/1/2010				0.027			0.055
6/2/2010			0.046				
11/9/2010	0.059				0.033	0.029	
11/10/2010		0.052	0.057	0.025			0.041
5/19/2011			0.048			0.027	
5/24/2011	0.054				0.027		
5/25/2011		0.045		0.015			0.035
11/9/2011			0.045				0.035
11/10/2011	0.063	0.11			0.032		
11/11/2011						0.031	
11/12/2011				0.021			
5/17/2012						0.0299	
5/18/2012	0.0646				0.0311		
5/30/2012		0.0831	0.0519				
5/31/2012				0.0222			0.0372
11/9/2012	0.081	0.13			0.034	0.03	
11/10/2012							0.044
11/11/2012			0.051	0.022			
5/7/2013						0.028	
5/8/2013	0.066				0.026		
5/9/2013		0.059	0.056				

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				0.019			0.2 (o)
11/6/2013	0.074				0.028	0.033	
11/11/2013		0.12	0.041				
11/12/2013				0.025			0.035
5/20/2014	0.057				0.027	0.029	
5/21/2014		0.073					
5/28/2014							0.038
5/29/2014			0.051	0.024			
11/17/2014					0.029		
11/18/2014	0.069	0.072				0.029	
11/19/2014			0.051				
11/20/2014							0.037
4/7/2015		0.06			0.024	0.028	
4/14/2015	0.067		0.043	0.022			0.035
10/28/2015		0.057			0.028	0.029	
10/29/2015	0.069						
11/3/2015				0.022			0.038
11/4/2015			0.042				
6/23/2016	0.063	0.036	0.084	0.019	0.025	0.028	0.028
8/30/2016	0.062				0.026		
8/31/2016		0.041	0.076	0.018			
9/1/2016						0.027	
9/2/2016							0.074
10/24/2016	0.0674						
10/25/2016		0.0429	0.039	0.016	0.0293	0.0296	
10/26/2016							0.0408
1/23/2017	0.069		0.044				
1/24/2017		0.025		0.017	0.028		
1/26/2017							0.038
1/27/2017						0.035	
4/11/2017	0.064	0.024	0.038	0.016	0.024		
4/12/2017						0.031	0.03
6/20/2017			0.057	0.02	0.027		
6/21/2017	0.074	0.034					0.028
6/22/2017						0.035	
10/25/2017	0.07	0.03	0.05	0.019	0.03		
10/26/2017						0.032	0.029
4/9/2018		0.023	0.049				
4/10/2018	0.073			0.019	0.028		0.032
4/11/2018						0.034	
10/16/2018	0.069	0.028	0.06	0.018	0.027		
10/17/2018						0.031	0.028
3/26/2019		0.029					
3/27/2019	0.063		0.054	0.019	0.024		0.032
3/28/2019						0.031	
8/19/2019		0.035					
8/20/2019	0.075			0.02	0.029		
8/21/2019			0.031			0.035	0.033
10/7/2019			0.033				
10/8/2019	0.078	0.042		0.02	0.03		0.031
10/9/2019						0.031	
4/6/2020			0.051				

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
4/7/2020	0.066	0.021		0.018	0.02		
4/8/2020						0.031	0.03
8/18/2020	0.079	0.025		0.021	0.031		
8/19/2020			0.041			0.034	0.028
9/29/2020	0.079	0.024	0.062	0.019	0.03		0.03
10/1/2020						0.032	

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				0.027		
4/5/2006				0.029		
10/30/2006				0.028		
5/10/2007				0.025		
11/17/2007				0.026		
5/2/2008				0.026		
10/22/2008				0.033		
5/12/2009	0.16 (o)	0.048	0.055			
5/13/2009						0.14 (o)
5/14/2009				0.035	0.039	
12/1/2009				0.031		
12/3/2009					0.036	0.032
12/4/2009		0.055	0.036			
12/5/2009	0.062					
5/25/2010		0.063	0.033			
5/26/2010	0.065			0.025	0.036	0.031
11/9/2010	0.065	0.11			0.038	0.03
11/10/2010			0.038	0.027		
5/18/2011					0.032	
5/19/2011			0.028			0.028
5/24/2011	0.062	0.11				
5/25/2011				0.022		
11/11/2011				0.027	0.036	0.032
11/12/2011	0.067	0.086	0.092 (o)			
5/17/2012			0.0427	0.0265	0.0353	0.0319
5/30/2012	0.0767	0.0586				
11/9/2012	0.093	0.4 (o)		0.028	0.038	0.036
11/10/2012			0.038			
5/7/2013			0.03		0.037	0.035
5/8/2013		0.054		0.026		
5/13/2013	0.093					
11/5/2013			0.087 (o)	0.027	0.037	
11/6/2013	0.068	0.043				0.043
5/20/2014		0.051				
5/21/2014	0.072			0.028	0.037	0.042
5/28/2014			0.032			
11/17/2014	0.05	0.049		0.031		
11/18/2014					0.038	0.044
11/19/2014			0.058			
4/7/2015	0.055	0.043		0.029	0.045	0.043
4/15/2015			0.039			
10/28/2015	0.054	0.047		0.032	0.042	0.045
10/29/2015			0.04			
6/23/2016				0.031	0.039	0.043
6/24/2016	0.056	0.044	0.034			
8/31/2016				0.03	0.037	0.042
9/1/2016	0.051	0.046	0.033			
10/25/2016	0.0637	0.0436		0.0317		0.0455
10/26/2016			0.0339		0.0423	
1/26/2017	0.055	0.051		0.035	0.046	0.048
1/27/2017			0.037			
4/11/2017	0.055	0.043				

Time Series

Constituent: Barium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			0.032	0.034	0.041	0.045
6/21/2017	0.054	0.043	0.036		0.049	
6/22/2017				0.038		0.055
10/25/2017			0.041	0.038		0.049
10/26/2017	0.046	0.038			0.046	
4/10/2018	0.056	0.046		0.038		
4/11/2018			0.04		0.048	0.052
10/16/2018	0.039					
10/17/2018		0.043	0.039	0.038	0.045	0.046
3/27/2019			0.033			
3/28/2019	0.054	0.045		0.038	0.045	0.047
8/20/2019	0.046					
8/21/2019		0.05	0.036	0.041	0.052	0.045
10/9/2019	0.057	0.049	0.039	0.046	0.049	0.041
4/8/2020	0.042	0.045		0.039		
4/9/2020			0.041		0.045	0.044
8/18/2020		0.062		0.044		
8/19/2020	0.045					0.046
8/20/2020			0.041		0.053	
9/29/2020	0.042	0.056		0.042		
9/30/2020			0.041			
10/1/2020					0.052	0.045

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.0025				<0.0025		
8/31/2016		<0.0025	<0.0025	<0.0025			
9/1/2016						<0.0025	
9/2/2016							<0.0025
10/24/2016	<0.0025						
10/25/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
10/26/2016							<0.0025
1/23/2017	<0.0025		<0.0025				
1/24/2017		<0.0025		<0.0025	<0.0025		
1/26/2017							<0.0025
1/27/2017						<0.0025	
4/11/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
4/12/2017						<0.0025	<0.0025
6/20/2017			<0.0025	<0.0025	<0.0025		
6/21/2017	<0.0025	<0.0025					<0.0025
6/22/2017						<0.0025	
10/25/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/26/2017						<0.0025	<0.0025
4/9/2018		<0.0025	<0.0025				
4/10/2018	<0.0025			<0.0025	<0.0025		<0.0025
4/11/2018						<0.0025	
10/16/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/17/2018						<0.0025	<0.0025
8/19/2019		<0.0025					
8/20/2019	<0.0025			0.00025 (J)	0.00035 (J)		
8/21/2019			<0.0025			<0.0025	<0.0025
10/7/2019			<0.0025				
10/8/2019	<0.0025	<0.0025		<0.0025	0.00041 (J)		<0.0025
10/9/2019						<0.0025	
4/6/2020			<0.0025				
4/7/2020	<0.0025	<0.0025		<0.0025	<0.0025		
4/8/2020						<0.0025	<0.0025
8/18/2020	<0.0025	<0.0025		<0.0025	<0.0025		
8/19/2020			<0.0025			<0.0025	<0.0025
9/29/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
10/1/2020						<0.0025	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.0025	<0.0025	<0.0025
9/1/2016	<0.0025	0.00034 (J)	<0.0025			
10/25/2016	<0.0025	0.0002 (J)		0.0001 (J)		<0.0025
10/26/2016			<0.0025		<0.0025	
1/26/2017	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
1/27/2017			<0.0025			
4/11/2017	<0.0025	<0.0025				
4/12/2017			<0.0025	<0.0025	<0.0025	<0.0025
6/21/2017	<0.0025	<0.0025	<0.0025		<0.0025	
6/22/2017				<0.0025		<0.0025
10/25/2017			<0.0025	<0.0025		<0.0025
10/26/2017	<0.0025	<0.0025			<0.0025	
4/10/2018	<0.0025	<0.0025		<0.0025		
4/11/2018			<0.0025		<0.0025	<0.0025
10/16/2018	<0.0025					
10/17/2018		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/20/2019	<0.0025					
8/21/2019		0.00025 (J)	<0.0025	<0.0025	<0.0025	<0.0025
10/9/2019	0.00027 (J)	0.00076 (J)	0.00034 (J)	0.00041 (J)	0.00047 (J)	0.00037 (J)
4/8/2020	<0.0025	0.00025 (J)		<0.0025		
4/9/2020			<0.0025		<0.0025	<0.0025
8/18/2020		0.00039 (J)		<0.0025		
8/19/2020	<0.0025					<0.0025
8/20/2020			<0.0025		<0.0025	
9/29/2020	<0.0025	0.0004 (J)		<0.0025		
9/30/2020			<0.0025			
10/1/2020					<0.0025	<0.0025

Time Series

Constituent: Boron (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	0.032 (J)				<0.08		
8/31/2016		0.1	0.04 (J)	<0.08			
9/1/2016						<0.08	
9/2/2016							<0.08
10/24/2016	0.0406 (J)						
10/25/2016		0.204	0.065 (J)	0.0068 (J)	0.0073 (J)	<0.08	
10/26/2016							0.0138 (J)
1/23/2017	0.023 (J)		0.031 (J)				
1/24/2017		0.064		<0.08	<0.08		
1/26/2017							<0.08
1/27/2017						<0.08	
4/11/2017	0.025 (J)	0.081	0.043 (J)	<0.08	<0.08		
4/12/2017						<0.08	<0.08
6/20/2017			0.029 (J)	<0.08	<0.08		
6/21/2017	<0.08	0.13					<0.08
6/22/2017						<0.08	
10/25/2017	0.028 (J)	0.17	0.041 (J)	<0.08	<0.08		
10/26/2017						0.026 (J)	<0.08
4/9/2018		0.059	0.04 (J)				
4/10/2018	0.027 (J)			<0.08	<0.08		<0.08
4/11/2018						<0.08	
10/16/2018	0.023 (J)	0.34	0.046 (J)	<0.08	<0.08		
10/17/2018						<0.08	<0.08
3/26/2019		0.32					
3/27/2019	<0.08		0.032 (J)	<0.08	<0.08		<0.08
3/28/2019						<0.08	
10/7/2019			<0.08				
10/8/2019	<0.08	0.68		<0.08	<0.08		<0.08
10/9/2019						<0.08	
4/6/2020			0.041 (J)				
4/7/2020	<0.08	0.23		<0.08	<0.08		
4/8/2020						<0.08	<0.08
6/23/2020						0.053 (J)	
6/25/2020		0.32	<0.08	<0.08	<0.08		<0.08
6/26/2020	<0.08						
9/29/2020	<0.08	0.35	0.039 (J)	<0.08	<0.08		<0.08
10/1/2020						0.082	

Time Series

Constituent: Boron (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				0.14	1.3	<0.08
9/1/2016	0.049 (J)	0.022 (J)	2.4			
10/25/2016	0.042 (J)	0.0219 (J)		0.126		0.0071 (J)
10/26/2016			1.97		1.14	
1/26/2017	0.059	<0.08		0.14	1.5	<0.08
1/27/2017			2.6			
4/11/2017	0.045 (J)	<0.08				
4/12/2017			2.4	0.12	1.3	<0.08
6/21/2017	0.045 (J)	<0.08	2.2		1.3	
6/22/2017				0.11		<0.08
10/25/2017			2.5	0.12		<0.08
10/26/2017	0.054	0.023 (J)			1.5	
4/10/2018	0.048 (J)	0.026 (J)		0.1		
4/11/2018			2.7		1	<0.08
10/16/2018	0.048 (J)					
10/17/2018		<0.08	2.2	0.084	1.3	<0.08
3/27/2019			2.3			
3/28/2019	0.08	0.022 (J)		0.087	1.3	0.044 (J)
10/9/2019	0.065 (J)	<0.08	2.1	0.076 (J)	1.2	<0.08
4/8/2020	0.059 (J)	<0.08		0.086		
4/9/2020			2.3		1.1	<0.08
6/23/2020					1.1	
6/24/2020	0.11	0.059 (J)	2.2			
6/25/2020				0.091		
6/26/2020						<0.08
9/29/2020	0.081	0.045 (J)		0.078 (J)		
9/30/2020			2.6			
10/1/2020					1.2	0.041 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.103 (o)	<0.0025		
6/30/1998				0.007 (o)	<0.0025		
12/2/1998				0.007 (o)	<0.0025		
6/8/1999				<0.0025	<0.0025		
12/7/1999				<0.0025	<0.0025		
6/15/2000				<0.0025	<0.0025		
12/12/2000				<0.0025	<0.0025		
12/5/2001				0.002	<0.0025		
6/26/2002				0.003	<0.0025		
12/3/2002				<0.0025	<0.0025		
6/11/2003				0.0043	<0.0025		
12/10/2003				<0.0025	<0.0025		
6/15/2004				<0.0025	<0.0025		
12/14/2004				<0.0025	0.0012		
6/2/2005				<0.0025	<0.0025		
12/14/2005				<0.0025	<0.0025		
4/5/2006				<0.0025	<0.0025		
10/30/2006				<0.0025	<0.0025		
5/10/2007				<0.0025	<0.0025		
11/17/2007				<0.0025	<0.0025		
5/3/2008				0.00033	<0.0025		
10/22/2008				<0.0025	<0.0025		
5/5/2009							<0.0025
5/6/2009	<0.0025				<0.0025		
5/7/2009		<0.0025		<0.0025			
5/13/2009						<0.0025	
12/1/2009					<0.0025		
12/3/2009	<0.0025	<0.0025				<0.0025	
12/4/2009				<0.0025			<0.0025
5/25/2010	<0.0025	<0.0025			<0.0025		
5/26/2010						<0.0025	
6/1/2010				<0.0025			<0.0025
6/2/2010			<0.0025				
11/9/2010	<0.0025				<0.0025	<0.0025	
11/10/2010		<0.0025	<0.0025	<0.0025			<0.0025
5/19/2011			<0.0025			<0.0025	
5/24/2011	<0.0025				<0.0025		
5/25/2011		<0.0025		<0.0025			<0.0025
11/9/2011			<0.0025				<0.0025
11/10/2011	<0.0025	<0.0025			<0.0025		
11/11/2011						<0.0025	
11/12/2011				<0.0025			
5/17/2012						<0.0025	
5/18/2012	<0.0025				<0.0025		
5/30/2012		<0.0025	<0.0025				
5/31/2012				<0.0025			<0.0025
11/9/2012	<0.0025	<0.0025			<0.0025	<0.0025	
11/10/2012							<0.0025
11/11/2012			<0.0025	<0.0025			
5/7/2013						<0.0025	
5/8/2013	<0.0025				<0.0025		
5/9/2013		<0.0025	<0.0025				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.0025			<0.0025
11/6/2013	<0.0025				<0.0025	<0.0025	
11/11/2013		<0.0025	<0.0025				
11/12/2013				<0.0025			<0.0025
5/20/2014	<0.0025				<0.0025	<0.0025	
5/21/2014		<0.0025					
5/28/2014							0
5/29/2014			<0.0025	<0.0025			
11/17/2014					<0.0025		
11/18/2014	<0.0025	<0.0025				<0.0025	
11/19/2014			<0.0025				
11/20/2014							<0.0025
4/7/2015		<0.0025			<0.0025	<0.0025	
4/14/2015	0.00026		<0.0025	<0.0025			<0.0025
10/28/2015		<0.0025			<0.0025	<0.0025	
10/29/2015	<0.0025						
11/3/2015				<0.0025			<0.0025
11/4/2015			<0.0025				
6/23/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/30/2016	<0.0025				<0.0025		
8/31/2016		<0.0025	0.00039 (J)	<0.0025			
9/1/2016						<0.0025	
9/2/2016							<0.0025
10/24/2016	<0.0025						
10/25/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
10/26/2016							<0.0025
1/23/2017	<0.0025		<0.0025				
1/24/2017		<0.0025		<0.0025	<0.0025		
1/26/2017							<0.0025
1/27/2017						<0.0025	
4/11/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
4/12/2017						<0.0025	<0.0025
6/20/2017			<0.0025	<0.0025	<0.0025		
6/21/2017	<0.0025	<0.0025					<0.0025
6/22/2017						<0.0025	
10/25/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/26/2017						<0.0025	<0.0025
4/9/2018		<0.0025	0.00052 (J)				
4/10/2018	<0.0025			<0.0025	<0.0025		<0.0025
4/11/2018						<0.0025	
10/16/2018	<0.0025	<0.0025	0.00071 (J)	<0.0025	<0.0025		
10/17/2018						<0.0025	<0.0025
3/26/2019		<0.0025					
3/27/2019	<0.0025		<0.0025	<0.0025	<0.0025		<0.0025
3/28/2019						<0.0025	
8/19/2019		<0.0025					
8/20/2019	<0.0025			0.00014 (J)	<0.0025		
8/21/2019			0.00015 (J)			<0.0025	<0.0025
10/7/2019			<0.0025				
10/8/2019	<0.0025	<0.0025		<0.0025	<0.0025		<0.0025
10/9/2019						<0.0025	
4/6/2020			<0.0025				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
4/7/2020	<0.0025	<0.0025		<0.0025	<0.0025		
4/8/2020						<0.0025	<0.0025
8/18/2020	<0.0025	<0.0025		<0.0025	<0.0025		
8/19/2020			<0.0025			<0.0025	<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.0025		
4/5/2006				<0.0025		
10/30/2006				<0.0025		
5/10/2007				<0.0025		
11/17/2007				<0.0025		
5/2/2008				<0.0025		
10/22/2008				<0.0025		
5/12/2009	<0.0025	<0.0025	<0.0025			
5/13/2009						<0.0025
5/14/2009				<0.0025	<0.0025	
12/1/2009				<0.0025		
12/3/2009					<0.0025	<0.0025
12/4/2009		<0.0025	<0.0025			
12/5/2009	<0.0025					
5/25/2010		<0.0025	<0.0025			
5/26/2010	<0.0025			<0.0025	<0.0025	<0.0025
11/9/2010	<0.0025	<0.0025			<0.0025	<0.0025
11/10/2010			<0.0025	<0.0025		
5/18/2011					<0.0025	
5/19/2011			<0.0025			<0.0025
5/24/2011	<0.0025	<0.0025				
5/25/2011				<0.0025		
11/11/2011				<0.0025	<0.0025	<0.0025
11/12/2011	<0.0025	<0.0025	<0.0025			
5/17/2012			<0.0025	<0.0025	<0.0025	<0.0025
5/30/2012	<0.0025	<0.0025				
11/9/2012	<0.0025	0.0015		<0.0025	<0.0025	<0.0025
11/10/2012			<0.0025			
5/7/2013			<0.0025		<0.0025	<0.0025
5/8/2013		<0.0025		<0.0025		
5/13/2013	<0.0025					
11/5/2013			<0.0025	<0.0025	<0.0025	
11/6/2013	<0.0025	<0.0025				<0.0025
5/20/2014		<0.0025				
5/21/2014	<0.0025			<0.0025	<0.0025	<0.0025
5/28/2014			<0.0025			
11/17/2014	<0.0025	<0.0025		<0.0025		
11/18/2014					<0.0025	<0.0025
11/19/2014			<0.0025			
4/7/2015	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
4/15/2015			<0.0025			
10/28/2015	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
10/29/2015			<0.0025			
6/23/2016				<0.0025	<0.0025	<0.0025
6/24/2016	<0.0025	<0.0025	<0.0025			
8/31/2016				<0.0025	<0.0025	<0.0025
9/1/2016	<0.0025	<0.0025	<0.0025			
10/25/2016	0.0001 (J)	0.0001 (J)		<0.0025		<0.0025
10/26/2016			<0.0025		<0.0025	
1/26/2017	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
1/27/2017			<0.0025			
4/11/2017	<0.0025	<0.0025				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.0025	<0.0025	<0.0025	<0.0025
6/21/2017	<0.0025	<0.0025	<0.0025		<0.0025	
6/22/2017				<0.0025		<0.0025
10/25/2017			<0.0025	<0.0025		<0.0025
10/26/2017	<0.0025	<0.0025			<0.0025	
4/10/2018	<0.0025	<0.0025		<0.0025		
4/11/2018			<0.0025		<0.0025	<0.0025
10/16/2018	<0.0025					
10/17/2018		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/27/2019			<0.0025			
3/28/2019	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
8/20/2019	<0.0025					
8/21/2019		0.00013 (J)	<0.0025	<0.0025	<0.0025	<0.0025
10/9/2019	<0.0025	0.00018 (J)	<0.0025	<0.0025	<0.0025	<0.0025
4/8/2020	<0.0025	<0.0025		<0.0025		
4/9/2020			<0.0025		<0.0025	<0.0025
8/18/2020		<0.0025		<0.0025		
8/19/2020	<0.0025					<0.0025
8/20/2020			<0.0025		<0.0025	

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	11				5.1		
8/31/2016		110	31	5.4			
9/1/2016						6.6	
9/2/2016							22
10/24/2016	10.4						
10/25/2016		150	38.5	4.47	4.76	5.89	
10/26/2016							23.7
1/23/2017	12		25				
1/24/2017		78		5.8	5.6		
1/26/2017							23
1/27/2017						7.4	
4/11/2017	12	78	33	5.3	4.7		
4/12/2017						6.7	17
6/20/2017			34	5.8	5.4		
6/21/2017	12	110					18
6/22/2017						7.5	
10/25/2017	13	120	28	5.9	6		
10/26/2017						7.8	19
4/9/2018		49	30				
4/10/2018	13			5.9	5.3		24
4/11/2018						7.4	
10/16/2018	12	110	41	5.8	5.6		
10/17/2018						7.1	21
3/26/2019		95					
3/27/2019	11		42	5.4	4.5		28
3/28/2019						7.3	
10/7/2019			36				
10/8/2019	13	190		6	5.9		24
10/9/2019						7.7	
4/6/2020			43				
4/7/2020	12	61		5.5	4		
4/8/2020						7.5	21
6/23/2020						7.7	
6/25/2020		100	27	5.7	6.1		23
6/26/2020	15						
9/29/2020	14	120	29	5.9	6.6		25
10/1/2020						8.1	

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				12	46	5.2
9/1/2016	21	16	42			
10/25/2016	29.8	13.5		10.9		4.64
10/26/2016			44.3		43.3	
1/26/2017	23	21		13	51	5.5
1/27/2017			49			
4/11/2017	28	16				
4/12/2017			45	12	47	4.9
6/21/2017	22	15	49		51	
6/22/2017				13		5.8
10/25/2017			49	12		6.1
10/26/2017	21	13			55	
4/10/2018	25	13		12		
4/11/2018			44		44	6
10/16/2018	16					
10/17/2018		10	49	11	52	5.8
3/27/2019			47			
3/28/2019	41	10		11	52	5.6
10/9/2019	39	10	49	11	53	5.7
4/8/2020	40	8.3		11		
4/9/2020			46		47	5.3
6/23/2020					52	
6/24/2020	47	11	44			
6/25/2020				11		
6/26/2020						5.6
9/29/2020	39	12		11		
9/30/2020			52			
10/1/2020					52	5.7

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				6.2	3.8		
6/30/1998				4.6	2.9		
12/2/1998				3.13	1.76		
6/8/1999				1.56	1.97		
12/7/1999				3.05	1.98		
6/15/2000				3.35	2.08		
12/12/2000				2.42	2.02		
12/5/2001				2.62	2.03		
6/26/2002				3.4	2.52		
12/3/2002				3.04	2.12		
6/11/2003				3.02	2.43		
12/10/2003				2.9	1.93		
6/15/2004				2.05	2.42		
12/14/2004				2.78	2.44		
6/2/2005				3.15	2.79		
12/14/2005				3.38	2.77		
4/5/2006				3.49	2.8		
10/30/2006				2.84	3.09		
5/10/2007				3.68	3.93		
11/17/2007				2.69	<0.021		
5/3/2008				2.85	3.52		
10/22/2008				2.99	3.15		
5/5/2009							2.61
5/6/2009	10.7				3.49		
5/7/2009		4.24		2.96			
5/13/2009						3.85	
12/1/2009					3.26		
12/3/2009	10.1	2.66				3.73	
12/4/2009				2.97			2.37
5/25/2010	7.11	3.29			3.62		
5/26/2010						3.7	
6/1/2010				3.23			3.71
6/2/2010			15.1				
11/9/2010	8.4				3.38	3.6	
11/10/2010		3.82	14.8	2.86			2.69
5/19/2011			28.2 (o)			3.79	
5/24/2011	9.07				3.62		
5/25/2011		4.92		2.86			2.44
11/9/2011			32.8 (o)				2.3
11/10/2011	10.3	4.48			3.74		
11/11/2011						4.07	
11/12/2011				2.83			
5/17/2012						3.84	
5/18/2012	10.1				3.6		
5/30/2012		4.72	30.8 (o)				
5/31/2012				2.68			2.29
11/9/2012	8.73	5.1			3.66	3.99	
11/10/2012							2.46
11/11/2012			24.6 (o)	2.63			
5/7/2013						3.94	
5/8/2013	8.06				4.16		
5/9/2013		3.85	27.2 (o)				

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				0.364			6.55
11/6/2013	10.2				3.87	3.89	
11/11/2013		5.26	12.7				
11/12/2013				2.95			2.86
5/20/2014	8.2				4.4	3.54	
5/21/2014		4.47					
5/28/2014							2.75
5/29/2014			20 (o)	2.64			
11/17/2014					4.2		
11/18/2014	10	6.4				4.2	
11/19/2014			19 (o)				
11/20/2014							3.4
4/7/2015		5.04			4.53	4.09	
4/14/2015	10.7		13.6	2.78			2.56
10/28/2015		6.3			4.47	3.98	
10/29/2015	10.7						
11/3/2015				2.66			2.01
11/4/2015			12.4				
6/23/2016	11	5.7	9	3.3	4.6	4.3	1.9
8/30/2016	11				4.3		
8/31/2016		5.7	5.4	2.7			
9/1/2016						4	
9/2/2016							2.7
10/24/2016	12						
10/25/2016		7.9	9.3	3.1	5	4.6	
10/26/2016							3.3
1/23/2017	11		5.1				
1/24/2017		4.4		2.5	5.1		
1/26/2017							1.6
1/27/2017						3.9	
4/11/2017	11	4.3	4.1	2.4	4.4		
4/12/2017						3.7	1.5
6/20/2017			4.1	2.5	5		
6/21/2017	11	5.5					1.6
6/22/2017						3.9	
10/25/2017	10	5.2	3.8	2.3	5.3		
10/26/2017						3.7	1.6
4/9/2018		3.8	3.9				
4/10/2018	9.9			2.4	5.1		1.8
4/11/2018						3.8	
10/16/2018	11	6	4.3	2.5	5.3		
10/17/2018						4	2.1
3/26/2019		4.6					
3/27/2019	11		4	2.5	4.3		1.8
3/28/2019						3.7	
10/7/2019			4				
10/8/2019	64 (o)	6.7		2.6	5.7		9.4 (o)
10/9/2019						3.8	
4/6/2020			4.2				
4/7/2020	11	3.8		2.9	3.7		
4/8/2020						3.9	1.9
6/23/2020						4.2	

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
6/25/2020		5.8	4	2.8	4.2		1.9
6/26/2020	12						
9/29/2020	12	5.7	4.1	2.7	4.6		2.5
10/1/2020						3.9	

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				7.52		
4/5/2006				7.38		
10/30/2006				6.9		
5/10/2007				8.88		
11/17/2007				13.5 (o)		
5/2/2008				12.9 (o)		
10/22/2008				7.97		
5/12/2009	3.96	3.5	8.89			
5/13/2009						3.37
5/14/2009				7.68	6.38	
12/1/2009				6.66		
12/3/2009					5.96	3.49
12/4/2009		1.85	9.43			
12/5/2009	3.81					
5/25/2010		1.74	8.49			
5/26/2010	3.85			6	5.37	3.35
11/9/2010	4.08	1.18			<0.071 (o)	3.34
11/10/2010			8.77	6.07		
5/18/2011					5.4	
5/19/2011			8.11			3.25
5/24/2011	3.63	2.51				
5/25/2011				5.7		
11/11/2011				6.23	5.58	3.57
11/12/2011	4.03	4.99	12.3 (o)			
5/17/2012			8.4	6.06	5.15	3.27
5/30/2012	3.82	6.4				
11/9/2012	3.69	3.37		4.9	5.2	3.45
11/10/2012			8.13			
5/7/2013			8.11		5.56	3.35
5/8/2013		5.67		5.85		
5/13/2013	3.5					
11/5/2013			7.82	5.44	5.24	
11/6/2013	3.74	3.62				3.45
5/20/2014		5.82				
5/21/2014	3.74			5.96	7.34 (o)	3.18
5/28/2014			6.99			
11/17/2014	4.4	6.4		7		
11/18/2014					6.1	4
11/19/2014			9			
4/7/2015	4.38	5.02		6.08	5.62	4.22
4/15/2015			8.14			
10/28/2015	4.62	4.98		5.02	5.58	4.87
10/29/2015			8.17			
6/23/2016				5.4	6.2	5.6
6/24/2016	5	5	8.4			
8/31/2016				5.1	5.6	5.4
9/1/2016	4.8	4.4	7.8			
10/25/2016	5.4	5.1		6.2		6.4
10/26/2016			8.9		7.1	
1/26/2017	5.2	4.2		5.1	5.8	5.3
1/27/2017			7.3			
4/11/2017	4.8	3.9				

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			7	4.9	5.6	5.2
6/21/2017	5.2	4.1	7.2		5.8	
6/22/2017				5.1		5.5
10/25/2017			7	5.1		5.3
10/26/2017	4.7	4			5.5	
4/10/2018	4.8	4.1		5		
4/11/2018			6.9		5.7	5.1
10/16/2018	4.5					
10/17/2018		4	7.1	5.8	6	5.3
3/27/2019			6.6			
3/28/2019	4.6	3.4		5.1	5.7	4.8
10/9/2019	4.7	3.3	6.7	4.6	5.7	5.2
4/8/2020	5.1	3.7		4.4		
4/9/2020			7.3		7.7	5.6
6/23/2020					7	
6/24/2020	5.9	4	7.2			
6/25/2020				4.6		
6/26/2020						5.4
9/29/2020	5.2	3.4		4.1		
9/30/2020			6.9			
10/1/2020					6	5.5

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	0.0012 (J)				0.0012 (J)		
8/31/2016		<0.002	<0.002	0.003			
9/1/2016						0.0038	
9/2/2016							0.0087
10/24/2016	0.0011 (J)						
10/25/2016		<0.002	<0.002	0.0028 (J)	0.0014 (J)	0.0042 (J)	
10/26/2016							<0.002
1/23/2017	<0.002		0.01				
1/24/2017		<0.002		0.0031	0.0012 (J)		
1/26/2017							<0.002
1/27/2017						0.005	
4/11/2017	0.0011 (J)	<0.002	<0.002	0.0029	<0.002		
4/12/2017						0.0048	<0.002
6/20/2017			<0.002	0.0037	<0.002		
6/21/2017	<0.002	<0.002					<0.002
6/22/2017						0.0047	
10/25/2017	<0.002	<0.002	<0.002	0.0031	<0.002		
10/26/2017						0.0043	<0.002
4/9/2018		<0.002	0.0019 (J)				
4/10/2018	0.0013 (J)			0.0036	0.0012 (J)		<0.002
4/11/2018						0.0051	
10/16/2018	<0.002	<0.002	<0.002	0.0035	0.0012 (J)		
10/17/2018						0.0051	<0.002
8/19/2019		0.0016 (J)					
8/20/2019	0.0026			0.0039	0.0032		
8/21/2019			<0.002			0.0073	0.0017 (J)
10/7/2019			<0.002				
10/8/2019	<0.002	<0.002		0.0031	<0.002		<0.002
10/9/2019						0.006	
4/6/2020			<0.002				
4/7/2020	0.0015 (J)	<0.002		0.0023	<0.002		
4/8/2020						0.0046	<0.002
8/18/2020	<0.002	<0.002		0.0027	<0.002		
8/19/2020			<0.002			0.0049	<0.002
9/29/2020	<0.002	<0.002	<0.002	0.003	<0.002		<0.002
10/1/2020						0.0047	

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				0.0033	<0.002	0.011
9/1/2016	0.0017 (J)	<0.002	<0.002			
10/25/2016	0.0023 (J)	<0.002		0.0029 (J)		0.0109
10/26/2016			<0.002		<0.002	
1/26/2017	0.0017 (J)	0.0016 (J)		0.0033	<0.002	0.011
1/27/2017			<0.002			
4/11/2017	0.0019 (J)	0.0013 (J)				
4/12/2017			<0.002	0.0036	<0.002	0.0096
6/21/2017	0.0017 (J)	<0.002	<0.002		<0.002	
6/22/2017				0.0036		0.011
10/25/2017			<0.002	0.0028		0.0094
10/26/2017	0.0013 (J)	<0.002			<0.002	
4/10/2018	0.0019 (J)	<0.002		0.0038		
4/11/2018			<0.002		<0.002	0.01
10/16/2018	0.0013 (J)					
10/17/2018		<0.002	<0.002	0.0036	<0.002	0.0096
8/20/2019	0.0025					
8/21/2019		<0.002	<0.002	0.0046	0.0015 (J)	0.0097
10/9/2019	0.0027	0.0021	<0.002	0.0042	0.0017 (J)	0.0084
4/8/2020	0.0021	<0.002		0.0027		
4/9/2020			<0.002		<0.002	0.0069
8/18/2020		<0.002		0.0031		
8/19/2020	0.0021					0.008
8/20/2020			<0.002		<0.002	
9/29/2020	0.002	<0.002		0.0031		
9/30/2020			<0.002			
10/1/2020					<0.002	0.0075

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.0025				<0.0025		
8/31/2016		<0.0025	<0.0025	<0.0025			
9/1/2016						<0.0025	
9/2/2016							0.03
10/24/2016	<0.0025						
10/25/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
10/26/2016							0.0036 (J)
1/23/2017	<0.0025		<0.0025				
1/24/2017		<0.0025		<0.0025	<0.0025		
1/26/2017							0.011
1/27/2017						<0.0025	
4/11/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
4/12/2017						<0.0025	<0.0025
6/20/2017			<0.0025	<0.0025	<0.0025		
6/21/2017	<0.0025	<0.0025					<0.0025
6/22/2017						<0.0025	
10/25/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/26/2017						<0.0025	<0.0025
4/9/2018		<0.0025	<0.0025				
4/10/2018	<0.0025			<0.0025	<0.0025		0.00045 (J)
4/11/2018						<0.0025	
10/16/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		
10/17/2018						<0.0025	<0.0025
8/19/2019		0.00029 (J)					
8/20/2019	0.00019 (J)			0.00018 (J)	0.00012 (J)		
8/21/2019			0.00022 (J)			0.00017 (J)	0.00048 (J)
10/7/2019			<0.0025				
10/8/2019	<0.0025	0.00011 (J)		<0.0025	<0.0025		0.00019 (J)
10/9/2019						0.00019 (J)	
4/6/2020			<0.0025				
4/7/2020	0.00029 (J)	<0.0025		<0.0025	0.00014 (J)		
4/8/2020						<0.0025	0.00026 (J)
6/23/2020						0.00013 (J)	
6/25/2020		<0.0025	<0.0025	<0.0025	<0.0025		0.00022 (J)
6/26/2020	0.00013 (J)						
8/18/2020	0.00019 (J)	<0.0025		0.00022 (J)	<0.0025		
8/19/2020			<0.0025			0.00015 (J)	0.0004 (J)
9/29/2020	0.00016 (J)	<0.0025	<0.0025	<0.0025	<0.0025		0.0003 (J)
10/1/2020						<0.0025	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.0025	<0.0025	<0.0025
9/1/2016	<0.0025	0.037	0.0014 (J)			
10/25/2016	<0.0025	0.0144		<0.0025		<0.0025
10/26/2016			0.0013 (J)		<0.0025	
1/26/2017	<0.0025	0.022		<0.0025	<0.0025	<0.0025
1/27/2017			0.0021 (J)			
4/11/2017	<0.0025	0.026				
4/12/2017			0.0015 (J)	<0.0025	<0.0025	<0.0025
6/21/2017	<0.0025	0.027	0.0018 (J)		<0.0025	
6/22/2017				<0.0025		<0.0025
10/25/2017			0.0013 (J)	<0.0025		<0.0025
10/26/2017	<0.0025	0.021			<0.0025	
4/10/2018	<0.0025	0.021		<0.0025		
4/11/2018			0.0014 (J)		<0.0025	<0.0025
10/16/2018	<0.0025					
10/17/2018		0.014	0.0012 (J)	<0.0025	<0.0025	<0.0025
8/20/2019	0.00016 (J)					
8/21/2019		0.018	0.0012	8.6E-05 (J)	0.00021 (J)	<0.0025
10/9/2019	0.00026 (J)	0.017	0.00099	0.00034 (J)	0.00041 (J)	0.00021 (J)
4/8/2020	<0.0025	0.016		<0.0025		
4/9/2020			0.00091 (J)		0.00013 (J)	0.00015 (J)
6/23/2020					0.00017 (J)	
6/24/2020	0.00013 (J)	0.024	0.00115 (JD)			
6/25/2020				<0.0025		
6/26/2020						<0.0025
8/18/2020		0.03		<0.0025		
8/19/2020	<0.0025					0.00013 (J)
8/20/2020			0.0014 (JD)		0.00023 (J)	
9/29/2020	<0.0025	0.027		<0.0025		
9/30/2020			0.00125 (JD)			
10/1/2020					0.00021 (J)	<0.0025

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	1.1				0.505 (U)		
8/31/2016		0.788	0.949 (U)	0.226 (U)			
9/1/2016						0.153 (U)	
9/2/2016							2.11
10/24/2016	0.808 (U)						
10/25/2016		0.503 (U)	1.13	0.273 (U)	0.177 (U)	0.328 (U)	
10/26/2016							2.45
1/23/2017	0.121 (U)		0.426				
1/24/2017		0.369		0.11 (U)	0.107 (U)		
1/26/2017							0.276 (U)
1/27/2017						-0.0761 (U)	
4/11/2017	0.378 (U)	0.71	0.604	0.358 (U)	-0.0587 (U)		
4/12/2017						0.112 (U)	0.387 (U)
6/20/2017			0.974	0.265 (U)	0.503		
6/21/2017	0.511	0.124 (U)					0.194 (U)
6/22/2017						0.414	
10/25/2017	0.587	0.981	0.409 (U)	0.5	0.512		
10/26/2017						0.334 (U)	0.519
4/9/2018		0.157 (U)	0.306 (U)				
4/10/2018	0.513			0.323	0.262 (U)		0.604
4/11/2018						0.17 (U)	
10/16/2018	0.53	0.305 (U)	0.701	0.798	0.989		
10/17/2018						0.38 (U)	0.46 (U)
8/19/2019		0.204 (U)					
8/20/2019	0.759			0.352 (U)	-0.0925 (U)		
8/21/2019			0.0663 (U)			0.352 (U)	0.491
10/7/2019			0.447 (U)				
10/8/2019	0.76	0.398 (U)		0.419 (U)	0.348 (U)		0.421 (U)
10/9/2019						-0.38 (U)	
4/6/2020			0.286 (U)				
4/7/2020	0.622	-0.0414 (U)		0.0354 (U)	0.198 (U)		
4/8/2020						-0.0401 (U)	0.309 (U)
8/18/2020	0.587	0.38 (U)		0.132 (U)	1.12		
8/19/2020			-0.0549 (U)			-0.0271 (U)	0.538
9/29/2020	0.765	0.403 (U)	0.134 (U)	-0.0479 (U)	-0.146 (U)		0.394 (U)
10/1/2020						0.172 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				-0.106 (U)	0.218 (U)	0.279 (U)
9/1/2016	0.568	-0.081 (U)	0.495 (U)			
10/25/2016	1.57	0.675 (U)		0.518 (U)		0.393 (U)
10/26/2016			0.606 (U)		0.335 (U)	
1/26/2017	0.255 (U)	0.18 (U)		0.37	0.345 (U)	0.0879 (U)
1/27/2017			0.641			
4/11/2017	0.334 (U)	0.547				
4/12/2017			-0.0936 (U)	0.316 (U)	0.37 (U)	0.219 (U)
6/21/2017	0.518	0.38	0.5		0.144 (U)	
6/22/2017				0.229 (U)		0.552
10/25/2017			0.345 (U)	0.281 (U)		0.388 (U)
10/26/2017	0.79	1.48			0.51	
4/10/2018	0.394	0.39		0.492		
4/11/2018			0.331 (U)		0.362	0.322
10/16/2018	0.0598 (U)					
10/17/2018		0.781	0.62	0.495 (U)	0.385 (U)	0.327 (U)
8/20/2019	0.227 (U)					
8/21/2019		-0.0366 (U)	0.693	0.0805 (U)	0.125 (U)	0.0554 (U)
10/9/2019	-0.0245 (U)	0.118 (U)	0.0684 (U)	0.552	-0.164 (U)	-0.238 (U)
4/8/2020	0.28 (U)	0.402 (U)		0.366 (U)		
4/9/2020			0.419 (U)		0.255 (U)	0.334 (U)
8/18/2020		0.423		0.376 (U)		
8/19/2020	0.306 (U)					0.124 (U)
8/20/2020			0.191 (U)		0.14 (U)	
9/29/2020	-0.0246 (U)	0.175 (U)		0.334 (U)		
9/30/2020			0.0811 (U)			
10/1/2020					0.512 (U)	0.501

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.1				<0.1		
8/31/2016		<0.1	0.12 (J)	<0.1			
9/1/2016						<0.1	
9/2/2016							0.21
10/24/2016	0.1 (J)						
10/25/2016		0.08 (J)	0.53	0.14 (J)	0.09 (J)	0.1 (J)	
10/26/2016							0.21 (J)
1/23/2017	<0.1		0.4				
1/24/2017		<0.1		<0.1	<0.1		
1/26/2017							0.097 (J)
1/27/2017						<0.1	
4/11/2017	<0.1	<0.1	0.31	<0.1	<0.1		
4/12/2017						<0.1	<0.1
6/20/2017			0.27	<0.1	<0.1		
6/21/2017	<0.1	<0.1					<0.1
6/22/2017						<0.1	
10/25/2017	<0.1	<0.1	0.29	<0.1	<0.1		
10/26/2017						<0.1	<0.1
4/9/2018		<0.1	0.25				
4/10/2018	<0.1			<0.1	<0.1		<0.1
4/11/2018						<0.1	
10/16/2018	0.1 (J)	<0.1	0.33	0.1 (J)	<0.1		
10/17/2018						<0.1	0.1 (J)
3/26/2019		<0.1					
3/27/2019	0.031 (J)		0.15 (J)	0.034 (J)	0.026 (J)		0.05 (J)
3/28/2019						0.03 (J)	
8/19/2019		<0.1					
8/20/2019	0.049 (J)			0.053 (J)	0.047 (J)		
8/21/2019			0.35			0.047 (J)	0.1 (J)
10/7/2019			0.12 (J)				
10/8/2019	0.27 (J)	0.033 (J)		0.056 (J)	0.05 (J)		0.33 (J)
10/9/2019						0.053 (J)	
4/6/2020			0.28				
4/7/2020	0.082 (J)	0.086 (J)		0.098 (J)	0.072 (J)		
4/8/2020						0.071 (J)	0.12
6/23/2020						0.04 (J)	
6/25/2020		0.03 (J)	0.17	0.06 (J)	0.042 (J)		0.067 (J)
6/26/2020	0.051 (J)						
8/18/2020	0.041 (J)	<0.1		<0.1	<0.1		
8/19/2020			0.12			<0.1	0.081 (J)
9/29/2020	0.06 (J)	0.032 (J)	0.13	0.065 (J)	0.051 (J)		0.089 (J)
10/1/2020						0.048 (J)	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.1	0.11 (J)	<0.1
9/1/2016	<0.1	<0.1	0.083 (J)			
10/25/2016	0.08 (J)	0.08 (J)		0.02 (J)		0.2 (J)
10/26/2016			0.32 (o)		0.43 (o)	
1/26/2017	<0.1	<0.1		<0.1	0.13 (J)	<0.1
1/27/2017			0.097 (J)			
4/11/2017	<0.1	<0.1				
4/12/2017			0.088 (J)	<0.1	0.13 (J)	<0.1
6/21/2017	<0.1	<0.1	0.096 (J)		0.14 (J)	
6/22/2017				<0.1		<0.1
10/25/2017			0.092 (J)	<0.1		<0.1
10/26/2017	<0.1	<0.1			0.13 (J)	
4/10/2018	<0.1	<0.1		<0.1		
4/11/2018			0.09 (J)		0.13 (J)	<0.1
10/16/2018	<0.1					
10/17/2018		<0.1	0.11 (J)	<0.1	0.16 (J)	<0.1
3/27/2019			0.05 (J)			
3/28/2019	<0.1	<0.1		<0.1	0.089 (J)	<0.1
8/20/2019	0.033 (J)					
8/21/2019		0.031 (J)	0.079 (J)	<0.1	0.12 (J)	0.03 (J)
10/9/2019	0.031 (J)	0.03 (J)	0.068 (J)	0.032 (J)	0.085 (J)	0.038 (J)
4/8/2020	0.051 (J)	0.053 (J)		0.062 (J)		
4/9/2020			0.11		0.16	0.066 (J)
6/23/2020					0.12	
6/24/2020	0.038 (J)	<0.1	0.094 (J)			
6/25/2020				<0.1		
6/26/2020						0.027 (J)
8/18/2020		<0.1		<0.1		
8/19/2020	<0.1					<0.1
8/20/2020			<0.1		0.054 (J)	
9/29/2020	0.026 (J)	0.029 (J)		0.027 (J)		
9/30/2020			0.082 (J)			
10/1/2020					0.14	0.041 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.162 (o)	<0.001		
6/30/1998				0.013	<0.001		
12/2/1998				0.01	0.002		
6/8/1999				0.004	<0.001		
12/7/1999				0.004	<0.001		
6/15/2000				0.004	<0.001		
12/12/2000				0.00378	<0.001		
12/5/2001				0.003	<0.001		
6/26/2002				0.00815	0.00539		
12/3/2002				0.008	<0.001		
6/11/2003				<0.001	<0.001		
12/10/2003				<0.001	<0.001		
6/15/2004				<0.001	<0.001		
12/14/2004				<0.001	0.013 (o)		
6/2/2005				<0.001	<0.001		
12/14/2005				<0.001	<0.001		
4/5/2006				<0.001	<0.001		
10/30/2006				<0.001	<0.001		
5/10/2007				<0.001	<0.001		
11/17/2007				<0.001	<0.001		
5/3/2008				<0.001	<0.001		
10/22/2008				<0.001	<0.001		
5/5/2009							<0.001
5/6/2009	<0.001				<0.001		
5/7/2009		<0.001		<0.001			
5/13/2009						<0.001	
12/1/2009					<0.001		
12/3/2009	<0.001	<0.001				<0.001	
12/4/2009				<0.001			<0.001
5/25/2010	<0.001	<0.001			<0.001		
5/26/2010						<0.001	
6/1/2010				<0.001			<0.001
6/2/2010			<0.001				
11/9/2010	<0.001				<0.001	<0.001	
11/10/2010		<0.001	<0.001	<0.001			<0.001
5/19/2011			<0.001			<0.001	
5/24/2011	<0.001				<0.001		
5/25/2011		<0.001		<0.001			<0.001
11/9/2011			<0.001				<0.001
11/10/2011	<0.001	<0.001			<0.001		
11/11/2011						<0.001	
11/12/2011				<0.001			
5/17/2012						<0.001	
5/18/2012	<0.001				<0.001		
5/30/2012		<0.001	<0.001				
5/31/2012				0.0005 (J)			0.0008 (J)
11/9/2012	<0.001	<0.001			<0.001	<0.001	
11/10/2012							<0.001
11/11/2012			<0.001	<0.001			
5/7/2013						<0.001	
5/8/2013	<0.001				<0.001		
5/9/2013		<0.001	<0.001				

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.001			0.025 (o)
11/6/2013	<0.001				<0.001	<0.001	
11/11/2013		<0.001	<0.001				
11/12/2013				<0.001			<0.001
5/20/2014	<0.001				<0.001	<0.001	
5/21/2014		<0.001					
5/28/2014							<0.001
5/29/2014			<0.001	<0.001			
11/17/2014					<0.001		
11/18/2014	<0.001	<0.001				<0.001	
11/19/2014			<0.001				
11/20/2014							<0.001
4/7/2015		<0.001			<0.001	<0.001	
4/14/2015	<0.001		<0.001	<0.001			<0.001
10/28/2015		<0.001			<0.001	<0.001	
10/29/2015	<0.001						
11/3/2015				<0.001			<0.001
11/4/2015			<0.001				
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2016	<0.001				<0.001		
8/31/2016		<0.001	<0.001	<0.001			
9/1/2016						<0.001	
9/2/2016							0.0056
10/24/2016	0.0002 (J)						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							0.0003 (J)
1/23/2017	<0.001		0.0013				
1/24/2017		<0.001		<0.001	<0.001		
1/26/2017							<0.001
1/27/2017						<0.001	
4/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
4/12/2017						<0.001	<0.001
6/20/2017			<0.001	<0.001	<0.001		
6/21/2017	<0.001	<0.001					<0.001
6/22/2017						<0.001	
10/25/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
10/26/2017						<0.001	<0.001
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	<0.001	<0.001	<0.001	<0.001		
10/17/2018						<0.001	0.0016
3/26/2019		<0.001					
3/27/2019	<0.001		<0.001	<0.001	<0.001		<0.001
3/28/2019						<0.001	
8/19/2019		<0.001					
8/20/2019	<0.001			0.00014 (J)	0.00014 (J)		
8/21/2019			0.00019 (J)			<0.001	<0.001
10/7/2019			<0.001				
10/8/2019	<0.001	0.00013 (J)		0.001	0.00016 (J)		<0.001
10/9/2019						<0.001	
4/6/2020			<0.001				

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
4/7/2020	<0.001	<0.001		<0.001	<0.001		
4/8/2020						0.031	<0.001
8/18/2020	<0.001	<0.001		0.00019 (J)	0.00013 (J)		
8/19/2020			<0.001			0.00013 (J)	<0.001
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
10/1/2020						<0.001	

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.001		
4/5/2006				<0.001		
10/30/2006				<0.001		
5/10/2007				0.0032		
11/17/2007				<0.001		
5/2/2008				0.008 (o)		
10/22/2008				<0.001		
5/12/2009	<0.001	<0.001	<0.001			
5/13/2009						<0.001
5/14/2009				0.00083	<0.001	
12/1/2009				<0.001		
12/3/2009					<0.001	<0.001
12/4/2009		<0.001	<0.001			
12/5/2009	<0.001					
5/25/2010		<0.001	<0.001			
5/26/2010	<0.001			<0.001	<0.001	<0.001
11/9/2010	<0.001	<0.001			<0.001	<0.001
11/10/2010			<0.001	<0.001		
5/18/2011					<0.001	
5/19/2011			<0.001			<0.001
5/24/2011	<0.001	<0.001				
5/25/2011				<0.001		
11/11/2011				<0.001	<0.001	<0.001
11/12/2011	<0.001	<0.001	<0.001			
5/17/2012			<0.001	<0.001	<0.001	<0.001
5/30/2012	<0.001	<0.001				
11/9/2012	<0.001	<0.001		<0.001	<0.001	<0.001
11/10/2012			<0.001			
5/7/2013			<0.001		<0.001	<0.001
5/8/2013		<0.001		<0.001		
5/13/2013	<0.001					
11/5/2013			<0.001	<0.001	<0.001	
11/6/2013	<0.001	<0.001				<0.001
5/20/2014		<0.001				
5/21/2014	<0.001			<0.001	<0.001	<0.001
5/28/2014			<0.001			
11/17/2014	<0.001	<0.001		<0.001		
11/18/2014					<0.001	<0.001
11/19/2014			<0.001			
4/7/2015	<0.001	<0.001		<0.001	<0.001	<0.001
4/15/2015			<0.001			
10/28/2015	<0.001	<0.001		<0.001	<0.001	<0.001
10/29/2015			<0.001			
6/23/2016				<0.001	<0.001	<0.001
6/24/2016	<0.001	<0.001	<0.001			
8/31/2016				<0.001	<0.001	<0.001
9/1/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			0.0002 (J)		<0.001	
1/26/2017	<0.001	<0.001		<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	<0.001	<0.001				

Time Series

Constituent: Lead (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.001	<0.001	<0.001	<0.001
6/21/2017	<0.001	<0.001	<0.001		<0.001	
6/22/2017				<0.001		<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	<0.001	<0.001			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					
10/17/2018		<0.001	<0.001	<0.001	<0.001	<0.001
3/27/2019			<0.001			
3/28/2019	<0.001	<0.001		<0.001	<0.001	<0.001
8/20/2019	<0.001					
8/21/2019		<0.001	<0.001	<0.001	<0.001	<0.001
10/9/2019	<0.001	<0.001	<0.001	<0.001	0.00019 (J)	0.00016 (J)
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
8/18/2020		<0.001		<0.001		
8/19/2020	<0.001					<0.001
8/20/2020			0.00028 (J)		<0.001	
9/29/2020	<0.001	<0.001		<0.001		
9/30/2020			0.0002 (J)			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	0.0052				<0.005		
8/31/2016		0.0053	0.0053	<0.005			
9/1/2016						<0.005	
9/2/2016							0.0045 (J)
10/24/2016	<0.05 (o)						
10/25/2016		0.0048 (J)	<0.005	<0.005	<0.005	<0.005	
10/26/2016							0.0025 (J)
1/23/2017	0.0039 (J)		0.0043 (J)				
1/24/2017		0.0032 (J)		<0.005	<0.005		
1/26/2017							<0.005
1/27/2017						<0.005	
4/11/2017	0.004 (J)	0.0036 (J)	<0.005	<0.005	<0.005		
4/12/2017						<0.005	<0.005
6/20/2017			0.0042 (J)	<0.005	<0.005		
6/21/2017	0.0041 (J)	0.0052					<0.005
6/22/2017						<0.005	
10/25/2017	0.0056	0.0059	0.0061	<0.005	<0.005		
10/26/2017						<0.005	<0.005
4/9/2018		0.0056	0.0052				
4/10/2018	0.007			<0.005	<0.005		0.0029 (J)
4/11/2018						0.0015 (J)	
10/16/2018	0.0045 (J)	0.0057	0.0052	0.0017 (J)	<0.005		
10/17/2018						0.0011 (J)	<0.005
8/19/2019		0.0058					
8/20/2019	0.0053			<0.005	<0.005		
8/21/2019			<0.005			<0.005	<0.005
10/7/2019			0.007				
10/8/2019	0.0078	0.0099		0.0047 (J)	0.0055		0.004 (J)
10/9/2019						0.0055	
4/6/2020			<0.005				
4/7/2020	0.0036 (J)	0.0036 (J)		<0.005	<0.005		
4/8/2020						<0.005	<0.005
6/23/2020						<0.005	
6/25/2020		0.0067	0.0071	<0.005	<0.005		0.004 (J)
6/26/2020	0.0061						
8/18/2020	0.0039 (J)	0.0042 (J)		<0.005	<0.005		
8/19/2020			<0.005			<0.005	<0.005
9/29/2020	0.0048 (J)	0.0052	0.0044 (J)	<0.005	<0.005		<0.005
10/1/2020						<0.005	

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.005	0.0039 (J)	<0.005
9/1/2016	<0.005	<0.005	0.0033 (J)			
10/25/2016	<0.005	<0.005		0.0024 (J)		<0.005
10/26/2016			0.0037 (J)		0.0025 (J)	
1/26/2017	<0.005	<0.005		0.0033 (J)	0.0035 (J)	<0.005
1/27/2017			0.0048 (J)			
4/11/2017	<0.005	<0.005				
4/12/2017			0.0039 (J)	<0.005	<0.005	<0.005
6/21/2017	<0.005	<0.005	0.0037 (J)		<0.005	
6/22/2017				<0.005		<0.005
10/25/2017			0.0047 (J)	0.005		<0.005
10/26/2017	<0.005	<0.005			0.0041 (J)	
4/10/2018	0.0031 (J)	0.0023 (J)		0.005		
4/11/2018			0.0062		0.0041 (J)	<0.005
10/16/2018	0.0016 (J)					
10/17/2018		0.0014 (J)	0.0049 (J)	0.0025 (J)	0.0037 (J)	<0.005
8/20/2019	<0.005					
8/21/2019		<0.005	0.0036 (J)	0.0034 (J)	<0.005	<0.005
10/9/2019	0.0076	0.0071	0.013	0.0083	0.0077	0.0061
4/8/2020	<0.005	<0.005		<0.005		
4/9/2020			<0.005		<0.005	<0.005
6/23/2020					0.0042 (J)	
6/24/2020	<0.005	<0.005	0.0047 (J)			
6/25/2020				0.0046 (J)		
6/26/2020						<0.005
8/18/2020		<0.005		<0.005		
8/19/2020	<0.005					<0.005
8/20/2020			<0.005		<0.005	
9/29/2020	<0.005	<0.005		<0.005		
9/30/2020			0.0048 (J)			
10/1/2020					0.0035 (J)	<0.005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.0002				<0.0002		
8/31/2016		<0.0002	<0.0002	<0.0002			
9/1/2016						<0.0002	
9/2/2016							<0.0002
10/24/2016	<0.0002						
10/25/2016		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
10/26/2016							<0.0002
1/23/2017	<0.0002		<0.0002				
1/24/2017		<0.0002		<0.0002	<0.0002		
1/26/2017							<0.0002
1/27/2017						7.7E-05 (J)	
4/11/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
4/12/2017						<0.0002	<0.0002
6/20/2017			<0.0002	<0.0002	<0.0002		
6/21/2017	<0.0002	<0.0002					<0.0002
6/22/2017						<0.0002	
10/25/2017	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
10/26/2017						<0.0002	<0.0002
4/9/2018		<0.0002	<0.0002				
4/10/2018	7.2E-05 (J)			<0.0002	7E-05 (J)		7.1E-05 (J)
4/11/2018						<0.0002	
10/16/2018	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
10/17/2018						<0.0002	<0.0002
8/19/2019		<0.0002					
8/20/2019	<0.0002			<0.0002	<0.0002		
8/21/2019			<0.0002			<0.0002	<0.0002
4/6/2020			<0.0002				
4/7/2020	<0.0002	<0.0002		0.00016 (J)	<0.0002		
4/8/2020						<0.0002	<0.0002
8/18/2020	<0.0002	<0.0002		<0.0002	<0.0002		
8/19/2020			<0.0002			<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.0002	<0.0002	<0.0002
9/1/2016	8.8E-05 (J)	<0.0002	<0.0002			
10/25/2016	<0.0002	<0.0002		<0.0002		<0.0002
10/26/2016			<0.0002		<0.0002	
1/26/2017	7.9E-05 (J)	<0.0002		<0.0002	8.1E-05 (J)	<0.0002
1/27/2017			7.4E-05 (J)			
4/11/2017	<0.0002	<0.0002				
4/12/2017			<0.0002	<0.0002	<0.0002	<0.0002
6/21/2017	0.00011 (J)	<0.0002	<0.0002		<0.0002	
6/22/2017				<0.0002		<0.0002
10/25/2017			<0.0002	<0.0002		<0.0002
10/26/2017	9.4E-05 (J)	<0.0002			<0.0002	
4/10/2018	9.9E-05 (J)	<0.0002		7E-05 (J)		
4/11/2018			<0.0002		<0.0002	<0.0002
10/16/2018	7E-05 (J)					
10/17/2018		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/20/2019	<0.0002					
8/21/2019		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
4/8/2020	<0.0002	<0.0002		<0.0002		
4/9/2020			<0.0002		<0.0002	<0.0002
8/18/2020		<0.0002		<0.0002		
8/19/2020	<0.0002					<0.0002
8/20/2020			<0.0002		<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.015				<0.015		
8/31/2016		<0.015	0.004 (J)	<0.015			
9/1/2016						<0.015	
9/2/2016							0.0015 (J)
10/24/2016	<0.015						
10/25/2016		<0.015	<0.015	<0.015	<0.015	<0.015	
10/26/2016							<0.015
1/23/2017	<0.015		<0.015				
1/24/2017		<0.015		<0.015	<0.015		
1/26/2017							<0.015
1/27/2017						<0.015	
4/11/2017	<0.015	<0.015	<0.015	<0.015	<0.015		
4/12/2017						<0.015	<0.015
6/20/2017			<0.015	<0.015	<0.015		
6/21/2017	<0.015	<0.015					<0.015
6/22/2017						<0.015	
10/25/2017	<0.015	0.0018 (J)	<0.015	0.00093 (J)	<0.015		
10/26/2017						<0.015	<0.015
4/9/2018		<0.015	<0.015				
4/10/2018	<0.015			<0.015	<0.015		0.00097 (J)
4/11/2018						<0.015	
10/16/2018	<0.015	<0.015	<0.015	<0.015	<0.015		
10/17/2018						<0.015	<0.015
8/19/2019		<0.015					
8/20/2019	<0.015			<0.015	<0.015		
8/21/2019			0.002 (J)			<0.015	0.0017 (J)
10/7/2019			0.00067 (J)				
10/8/2019	<0.015	<0.015		<0.015	<0.015		0.0011 (J)
10/9/2019						<0.015	
4/6/2020			0.00084 (J)				
4/7/2020	<0.015	<0.015		<0.015	<0.015		
4/8/2020						<0.015	0.00075 (J)
6/23/2020						<0.015	
6/25/2020		<0.015	<0.015	<0.015	<0.015		0.00086 (J)
6/26/2020	<0.015						
8/18/2020	<0.015	<0.015		<0.015	<0.015		
8/19/2020			0.00065 (J)			<0.015	0.0016 (J)
9/29/2020	<0.015	<0.015	<0.015	<0.015	<0.015		0.0019 (J)
10/1/2020						<0.015	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.015	0.034	<0.015
9/1/2016	<0.015	<0.015	<0.015			
10/25/2016	<0.015	<0.015		<0.015		<0.015
10/26/2016			<0.015		0.0377	
1/26/2017	<0.015	<0.015		<0.015	0.04	<0.015
1/27/2017			<0.015			
4/11/2017	<0.015	<0.015				
4/12/2017			<0.015	<0.015	0.035	<0.015
6/21/2017	<0.015	<0.015	<0.015		0.038	
6/22/2017				<0.015		<0.015
10/25/2017			<0.015	<0.015		<0.015
10/26/2017	<0.015	<0.015			0.041	
4/10/2018	<0.015	<0.015		<0.015		
4/11/2018			<0.015		0.037	<0.015
10/16/2018	<0.015					
10/17/2018		<0.015	<0.015	<0.015	0.036	<0.015
8/20/2019	<0.015					
8/21/2019		<0.015	<0.015	<0.015	0.051	<0.015
10/9/2019	<0.015	<0.015	<0.015	<0.015	0.049	<0.015
4/8/2020	<0.015	<0.015		<0.015		
4/9/2020			<0.015		0.039	<0.015
6/23/2020					0.043	
6/24/2020	<0.015	<0.015	<0.015			
6/25/2020				<0.015		
6/26/2020						<0.015
8/18/2020		<0.015		<0.015		
8/19/2020	<0.015					<0.015
8/20/2020			<0.015		0.042	
9/29/2020	<0.015	<0.015		<0.015		
9/30/2020			<0.015			
10/1/2020					0.043	<0.015

Time Series

Constituent: pH (SU) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	6.82 (o)				6.07		
8/31/2016		6.67 (o)	7.55 (o)	6.09		6.16	
9/2/2016							6.54
10/24/2016	5.99						
10/25/2016		5.8	6.92	5.92	5.96	6.02	6.25
10/26/2016							6.23
1/23/2017	5.94		6.76				
1/24/2017		5.82		5.98	5.89		
1/26/2017							6.4
1/27/2017						5.98	
4/11/2017	5.88	5.78	6.72	5.82	5.78		
4/12/2017						5.87	6.1
6/20/2017			6.66	5.8	5.69		
6/21/2017	5.73	5.67					6.11
6/22/2017						5.68	
10/25/2017	6.13	5.72	6.77	5.89	6.11		
10/26/2017						6.07	6.2
4/9/2018		5.78	6.6				
4/10/2018	5.95			5.85	5.58		6.17
4/11/2018						5.72	
10/16/2018	5.94	5.74	6.63	6.03	5.86		
10/17/2018						5.9	6.34
3/26/2019		5.96					
3/27/2019	6		6.83	6.1	5.97		6.6
3/28/2019						6.05	
8/19/2019		5.59					
8/20/2019	5.89			5.83	5.8		
8/21/2019			6.94			5.82	6.3
10/7/2019			6.69				
10/8/2019	5.93	5.74		5.96	5.93		6.38
10/9/2019						5.94	
4/6/2020			6.65				
4/7/2020	5.91	5.84		5.9	5.86		
4/8/2020						5.95	6.26
6/23/2020						5.95	
6/25/2020		5.8	6.38	5.75	5.87		6.32
6/26/2020	5.94						
8/18/2020	6.48	6.15		6.47	6.18		
8/19/2020			6.62			7.06	6.47
9/29/2020	5.88	5.75	6.8	6.02	6		7.11
10/1/2020						5.83	

Time Series

Constituent: pH (SU) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				5.98	6.62	6.1
9/1/2016	5.49	5.52	6.19			
10/25/2016	5.29	5.45		5.81		5.92
10/26/2016			6.03		6.44	
1/26/2017	5.29	5.43		5.73	6.34	5.82
1/27/2017			6.01			
4/11/2017	5.21	5.33				
4/12/2017			5.97	5.65	6.36	5.79
6/21/2017	5.21	5.3	5.9		6.28	
6/22/2017				5.69		5.64
10/25/2017			5.97	5.99		5.7
10/26/2017	5.2	5.29			6.47	
4/10/2018	5.34	5.46		5.6		
4/11/2018			5.87		6.34	5.69
10/16/2018	5.47					
10/17/2018		5.32	5.9	5.67	6.2	5.81
3/27/2019			6.06			
3/28/2019	5.31	5.36		5.85		5.97
3/29/2019					6.55	
8/20/2019	5.35					
8/21/2019		5.07	5.94	5.77	6.36	5.76
10/9/2019	5.22	5.27	6.01	5.76	6.47	5.9
4/8/2020	5.07	5.02		5.75		
4/9/2020			5.98		6.42	5.9
6/23/2020					6.37	
6/24/2020	5.2	5.11	5.91			
6/25/2020				5.75		
6/26/2020						5.85
8/18/2020		5.07		6.7		
8/19/2020	5.24					7.21
8/20/2020			6.43		6.34	
9/29/2020	5.5	5.75		5.92		
9/30/2020			5.98			
10/1/2020					6.44	5.78

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				<0.005	<0.005		
6/30/1998				<0.005	<0.005		
12/2/1998				<0.005	<0.005		
6/8/1999				<0.005	<0.005		
12/7/1999				<0.005	<0.005		
6/15/2000				<0.005	<0.005		
12/12/2000				<0.005	<0.005		
12/5/2001				<0.005	<0.005		
6/26/2002				<0.005	<0.005		
12/3/2002				<0.005	<0.005		
6/11/2003				<0.005	<0.005		
12/10/2003				<0.005	<0.005		
6/15/2004				<0.005	<0.005		
12/14/2004				<0.005	<0.005		
6/2/2005				<0.005	<0.005		
12/14/2005				<0.005	<0.005		
4/5/2006				<0.005	<0.005		
10/30/2006				<0.005	<0.005		
5/10/2007				<0.005	<0.005		
11/17/2007				<0.005	<0.005		
5/3/2008				<0.005	<0.005		
10/22/2008				<0.005	<0.005		
5/5/2009							0.0041
5/6/2009	0.0054				0.0047		
5/7/2009		0.0059		0.0049			
5/13/2009						0.005	
12/1/2009					0.0046		
12/3/2009	0.006	0.0057				0.0057	
12/4/2009				<0.005			<0.005
5/25/2010	<0.005	<0.013			<0.005		
5/26/2010						<0.005	
6/1/2010				<0.005			<0.005
6/2/2010			<0.005				
11/9/2010	<0.005				<0.005	<0.005	
11/10/2010		<0.013	<0.005	<0.005			<0.005
5/19/2011			<0.005			<0.005	
5/24/2011	<0.005				<0.005		
5/25/2011		<0.013		<0.005			<0.005
11/9/2011			<0.005				<0.005
11/10/2011	<0.005	<0.013			<0.005		
11/11/2011						<0.005	
11/12/2011				<0.005			
5/17/2012						<0.005	
5/18/2012	<0.005				<0.005		
5/30/2012		<0.0005	<0.005				
5/31/2012				<0.005			<0.005
11/9/2012	<0.005	<0.005			<0.005	<0.005	
11/10/2012							<0.005
11/11/2012			<0.005	<0.005			
5/7/2013						<0.005	
5/8/2013	<0.005				<0.005		
5/9/2013		<0.005	<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				<0.005			<0.005
11/6/2013	<0.005				<0.005	<0.005	
11/11/2013		<0.005	<0.005				
11/12/2013				<0.005			<0.005
5/20/2014	<0.005				<0.005	<0.005	
5/21/2014		<0.005					
5/28/2014							<0.005
5/29/2014			<0.005	<0.005			
11/17/2014					<0.005		
11/18/2014	<0.005	0.0083				<0.005	
11/19/2014			<0.005				
11/20/2014							<0.005
4/7/2015		<0.005			<0.005	<0.005	
4/14/2015	<0.005		<0.005	<0.005			<0.005
10/28/2015		0.023			<0.005	<0.005	
10/29/2015	<0.005						
11/3/2015				<0.005			<0.005
11/4/2015			<0.005				
6/23/2016	<0.005	0.0096	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2016	<0.005				<0.005		
8/31/2016		0.017	0.00077 (J)	<0.005			
9/1/2016						<0.005	
9/2/2016							0.0005 (J)
10/24/2016	<0.005						
10/25/2016		0.0257	<0.005	<0.005	<0.005	<0.005	
10/26/2016							<0.005
1/23/2017	<0.005		0.00037 (J)				
1/24/2017		0.0097		<0.005	<0.005		
1/26/2017							<0.005
1/27/2017						<0.005	
4/11/2017	<0.005	0.0079	<0.005	<0.005	<0.005		
4/12/2017						<0.005	<0.005
6/20/2017			0.00044 (J)	<0.005	<0.005		
6/21/2017	0.00025 (J)	0.019					<0.005
6/22/2017						<0.005	
10/25/2017	0.00027 (J)	0.022	0.00038 (J)	0.00032 (J)	0.00027 (J)		
10/26/2017						<0.005	0.0004 (J)
4/9/2018		0.0063	<0.005				
4/10/2018	0.00033 (J)			<0.005	<0.005		0.00044 (J)
4/11/2018						<0.005	
10/16/2018	<0.005	0.021	<0.005	<0.005	<0.005		
10/17/2018						<0.005	<0.005
3/26/2019		0.015					
3/27/2019	<0.005		<0.005	<0.005	<0.005		<0.005
3/28/2019						<0.005	
8/19/2019		0.034					
8/20/2019	<0.005			<0.005	<0.005		
8/21/2019			<0.005			<0.005	<0.005
10/7/2019			<0.005				
10/8/2019	<0.005	0.03		<0.005	<0.005		<0.005
10/9/2019						<0.005	
4/6/2020			<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
4/7/2020	<0.005	0.0094		<0.005	<0.005		
4/8/2020						<0.005	<0.005
8/18/2020	<0.005	0.019		<0.005	<0.005		
8/19/2020			<0.005			<0.005	<0.005
9/29/2020	<0.005	0.021	<0.005	<0.005	<0.005		<0.005
10/1/2020						<0.005	

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.005		
4/5/2006				<0.005		
10/30/2006				<0.005		
5/10/2007				<0.005		
11/17/2007				<0.005		
5/2/2008				<0.005		
10/22/2008				<0.005		
5/12/2009	0.0062	0.0059	0.0039			
5/13/2009						0.0049
5/14/2009				0.0046	0.0035	
12/1/2009				0.0019		
12/3/2009					<0.005	0.0045
12/4/2009		<0.005	<0.005			
12/5/2009	<0.005					
5/25/2010		<0.005	<0.005			
5/26/2010	<0.005			<0.005	<0.005	<0.005
11/9/2010	<0.005	<0.005			<0.005	<0.005
11/10/2010			<0.005	<0.005		
5/18/2011					<0.005	
5/19/2011			<0.005			<0.005
5/24/2011	<0.005	<0.005				
5/25/2011				<0.005		
11/11/2011				<0.005	<0.005	<0.005
11/12/2011	<0.005	<0.005	<0.005			
5/17/2012			0.0006 (J)	<0.005	<0.005	<0.005
5/30/2012	0.0016 (J)	<0.005				
11/9/2012	<0.005	<0.005		<0.005	<0.005	<0.005
11/10/2012			<0.005			
5/7/2013			<0.005		<0.005	<0.005
5/8/2013		<0.005		<0.005		
5/13/2013	<0.005					
11/5/2013			<0.005	<0.005	<0.005	
11/6/2013	<0.005	<0.005				<0.005
5/20/2014		<0.005				
5/21/2014	<0.005			<0.005	<0.005	<0.005
5/28/2014			<0.005			
11/17/2014	<0.005	<0.005		<0.005		
11/18/2014					<0.005	<0.005
11/19/2014			<0.005			
4/7/2015	<0.005	<0.005		<0.005	<0.005	<0.005
4/15/2015			<0.005			
10/28/2015	<0.005	<0.005		<0.005	<0.005	<0.005
10/29/2015			<0.005			
6/23/2016				0.00029 (J)	<0.005	<0.005
6/24/2016	0.0014	<0.005	<0.005			
8/31/2016				<0.005	<0.005	0.00024 (J)
9/1/2016	0.0014	<0.005	<0.005			
10/25/2016	0.0015 (J)	<0.005		<0.005		<0.005
10/26/2016			<0.005		<0.005	
1/26/2017	0.00071 (J)	<0.005		<0.005	<0.005	<0.005
1/27/2017			<0.005			
4/11/2017	0.0011 (J)	<0.005				

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Constituent: Selenium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			<0.005	<0.005	<0.005	<0.005
6/21/2017	0.00075 (J)	<0.005	<0.005		<0.005	
6/22/2017				<0.005		<0.005
10/25/2017			<0.005	<0.005		0.00029 (J)
10/26/2017	0.0012 (J)	<0.005			<0.005	
4/10/2018	0.0013	<0.005		<0.005		
4/11/2018			<0.005		<0.005	<0.005
10/16/2018	0.00072 (J)					
10/17/2018		<0.005	<0.005	<0.005	<0.005	<0.005
3/27/2019			<0.005			
3/28/2019	0.0017	<0.005		<0.005	<0.005	<0.005
8/20/2019	<0.005					
8/21/2019		<0.005	<0.005	<0.005	<0.005	<0.005
10/9/2019	0.0018 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
4/8/2020	0.0022 (J)	<0.005		<0.005		
4/9/2020			<0.005		<0.005	<0.005
8/18/2020		<0.005		<0.005		
8/19/2020	0.0029 (J)					<0.005
8/20/2020			<0.005		<0.005	
9/29/2020	0.0025 (J)	<0.005		<0.005		
9/30/2020			<0.005			
10/1/2020					<0.005	<0.005

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Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				0.035 (o)	<0.001		
6/30/1998				<0.001	<0.001		
12/2/1998				<0.001	<0.001		
6/8/1999				<0.001	<0.001		
12/7/1999				<0.001	<0.001		
6/15/2000				<0.001	<0.001		
12/12/2000				0.0051	<0.001		
12/5/2001				<0.001	<0.001		
6/26/2002				<0.001	<0.001		
12/3/2002				<0.001	<0.001		
6/11/2003				<0.001	<0.001		
12/10/2003				0.003	0.002 (o)		
6/15/2004				<0.001	<0.001		
12/14/2004				<0.001	<0.001		
6/2/2005				<0.001	<0.001		
12/14/2005				<0.001	<0.001		
4/5/2006				<0.001	<0.001		
10/30/2006				0.002	<0.001		
5/10/2007				0.0017	<0.001		
11/17/2007				<0.001	<0.001		
5/3/2008				<0.001	<0.001		
10/22/2008				<0.001	<0.001		
5/5/2009							<0.001
5/6/2009	<0.001				<0.001		
5/7/2009		<0.001		<0.001			
5/13/2009						0.0009	
12/1/2009					<0.001		
12/3/2009	<0.001	<0.001				0.00083	
12/4/2009				<0.001			0.00098
5/25/2010	<0.001	<0.001			<0.001		
5/26/2010						<0.001	
6/1/2010				<0.001			<0.001
6/2/2010			<0.001				
11/9/2010	<0.001				<0.001	<0.001	
11/10/2010		<0.001	<0.001	<0.001			<0.001
5/19/2011			<0.001			<0.001	
5/24/2011	<0.001				<0.001		
5/25/2011		<0.001		<0.001			<0.001
5/17/2012						<0.001	
5/18/2012	0.0001 (J)				<0.001		
5/30/2012		<0.001	<0.001				
5/31/2012				<0.001			<0.001
11/9/2012	<0.001	<0.001			<0.001	<0.001	
11/10/2012							<0.001
11/11/2012			<0.001	<0.001			
5/7/2013						<0.001	
5/8/2013	<0.001				<0.001		
5/9/2013		<0.001	<0.001				
5/13/2013				<0.001			<0.001
11/6/2013	<0.001				<0.001	<0.001	
11/11/2013		<0.001	<0.001				
11/12/2013				<0.001			<0.001

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Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/20/2014	<0.001				<0.001	<0.001	
5/21/2014		<0.001					
5/28/2014							<0.001
5/29/2014			<0.001	<0.001			
11/17/2014					<0.001		
11/18/2014	<0.001	<0.001				<0.001	
11/19/2014			<0.001				
11/20/2014							<0.001
4/7/2015		<0.001			<0.001	<0.001	
4/14/2015	<0.001		<0.001	<0.001			<0.001
10/28/2015		<0.001			<0.001	<0.001	
10/29/2015	<0.001						
11/3/2015				<0.001			<0.001
11/4/2015			<0.001				
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10/24/2016	<0.001						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							<0.001
4/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
4/12/2017						<0.001	<0.001
10/25/2017	<0.001	0.00013 (J)	<0.001	<0.001	<0.001		
10/26/2017						<0.001	0.00037 (J)
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	<0.001	<0.001	<0.001	<0.001		
10/17/2018						<0.001	<0.001
3/26/2019		<0.001					
3/27/2019	<0.001		<0.001	<0.001	<0.001		<0.001
3/28/2019						<0.001	
10/7/2019			0.00022 (J)				
10/8/2019	<0.001	0.00047 (J)		0.00019 (J)	0.0003 (J)		0.00018 (J)
10/9/2019						<0.001	
4/6/2020			<0.001				
4/7/2020	<0.001	<0.001		<0.001	<0.001		
4/8/2020						<0.001	<0.001
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
10/1/2020						<0.001	

Time Series

Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				<0.001		
4/5/2006				<0.001		
10/30/2006				<0.001		
5/10/2007				0.0011		
11/17/2007				<0.001		
5/2/2008				<0.001		
10/22/2008				<0.001		
5/12/2009	0.0011	0.0011	<0.001			
5/13/2009						0.0024 (o)
5/14/2009				<0.001	<0.001	
12/1/2009				<0.001		
12/3/2009					<0.001	0.0007
12/4/2009		0.0014	0.0008			
12/5/2009	0.0004					
5/25/2010		<0.001	<0.001			
5/26/2010	<0.001			<0.001	<0.001	<0.001
11/9/2010	<0.001	<0.001			<0.001	<0.001
11/10/2010			<0.001	<0.001		
5/18/2011					<0.001	
5/19/2011			<0.001			<0.001
5/24/2011	<0.001	<0.001				
5/25/2011				<0.001		
5/17/2012			<0.001	<0.001	<0.001	<0.001
5/30/2012	<0.001	<0.001				
11/9/2012	<0.001	<0.001		<0.001	<0.001	<0.001
11/10/2012			<0.001			
5/7/2013			<0.001		<0.001	<0.001
5/8/2013		<0.001		<0.001		
5/13/2013	<0.001					
11/5/2013			<0.001	<0.001	<0.001	
11/6/2013	<0.001	<0.001				<0.001
5/20/2014		<0.001				
5/21/2014	<0.001			<0.001	<0.001	<0.001
5/28/2014			<0.001			
11/17/2014	<0.001	<0.001		<0.001		
11/18/2014					<0.001	<0.001
11/19/2014			<0.001			
4/7/2015	<0.001	<0.001		<0.001	<0.001	<0.001
4/15/2015			<0.001			
10/28/2015	<0.001	<0.001		<0.001	<0.001	<0.001
10/29/2015			<0.001			
6/23/2016				<0.001	<0.001	<0.001
6/24/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			<0.001		<0.001	
4/11/2017	<0.001	<0.001				
4/12/2017			<0.001	<0.001	<0.001	<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	0.00026 (J)	<0.001			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					

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Constituent: Silver (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
10/17/2018		<0.001	<0.001	<0.001	<0.001	<0.001
3/27/2019			<0.001			
3/28/2019	<0.001	<0.001		<0.001	<0.001	<0.001
10/9/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
9/29/2020	<0.001	<0.001		<0.001		
9/30/2020			<0.001			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
12/16/1997				<1	2		
6/30/1998				<1	<1		
12/2/1998				0.654	0.709		
6/8/1999				1.46	<1		
12/7/1999				0.399	0.531		
6/15/2000				0.601	0.733		
12/12/2000				0.45	0.621		
12/5/2001				0.094	0.274		
6/26/2002				4.95	0.505		
12/3/2002				0.911	0.515		
6/11/2003				1.85	0.508		
12/10/2003				0.77	0.578		
6/15/2004				1.3	1.23		
12/14/2004				1.02	1.22		
6/2/2005				0.834	0.908		
12/14/2005				<1	0.825		
4/5/2006				<1	1.06		
10/30/2006				0.865	0.996		
5/10/2007				1.03	1.01		
11/17/2007				0.818	1.72		
5/3/2008				0.941	1.2		
10/22/2008				<1	<1		
5/5/2009							2.89
5/6/2009	16.6				0.807		
5/7/2009		21.4		0.46			
5/13/2009						0.984	
12/1/2009					0.644		
12/3/2009	12.3	11.6				0.544	
12/4/2009				1.06			3.13
5/25/2010	6.44	12.3			0.509		
5/26/2010						0.37	
6/1/2010				5.56			14.5
6/2/2010			129				
11/9/2010	6.83				0.348	0.299	
11/10/2010		10.6	140	0.241			5.04
5/19/2011			269			0.502	
5/24/2011	8.55				0.532		
5/25/2011		11.9		0.383			4.57
11/9/2011			308				4.15
11/10/2011	9.74	100			0.209		
11/11/2011						0.172	
11/12/2011				<1			
5/17/2012						0.438	
5/18/2012	8.72				0.471		
5/30/2012		61.3	296				
5/31/2012				0.426			4.05
11/9/2012	5.9	202			0.589	0.537	
11/10/2012							5.68
11/11/2012			225	0.455 (J)			
5/7/2013						0.437	
5/8/2013	5.66				0.504		
5/9/2013		33.4	268				

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Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
5/13/2013				2.61			2.45
11/6/2013	9.04				<1	<1	
11/11/2013		316	132				
11/12/2013				<1			11.8
5/20/2014	7.25				0.5 (J)	0	
5/21/2014		162					
5/28/2014							14.6
5/29/2014			216	1.41			
11/17/2014					<1		
11/18/2014	10	370				<1	
11/19/2014			160				
11/20/2014							12
4/7/2015		235			0.469	0.464	
4/14/2015	9.61		105	0.377			8.71
10/28/2015		737			0.28	0.293	
10/29/2015	10.2						
11/3/2015				0.215			5.14
11/4/2015			74.4				
6/23/2016	9.8	380	18	<1	<1	<1	6.9
8/30/2016	9.5				<1		
8/31/2016		600	19	<1			
9/1/2016						<1	
9/2/2016							6.1
10/24/2016	11						
10/25/2016		820	42	0.3 (J)	0.4 (J)	0.38 (J)	
10/26/2016							22
1/23/2017	11		12				
1/24/2017		370		<1	<1		
1/26/2017							5.1
1/27/2017						<1	
4/11/2017	9.1	340	7.1	<1	<1		
4/12/2017						<1	4
6/20/2017			8.5	<1	<1		
6/21/2017	10	540					4.6
6/22/2017						<1	
10/25/2017	11	580	9.1	<1	<1		
10/26/2017						<1	5.4
4/9/2018		230	11				
4/10/2018	9.5			<1	<1		6.7
4/11/2018						<1	
10/16/2018	10	520	14	<1	<1		
10/17/2018						<1	6.8
3/26/2019		430					
3/27/2019	9.1		15	0.38 (J)	0.55 (J)		7.2
3/28/2019						0.38 (J)	
10/7/2019			12				
10/8/2019	55	950		0.7 (J)	0.7 (J)		31
10/9/2019						0.59 (J)	
4/6/2020			10				
4/7/2020	8	270		0.67 (J)	<1		
4/8/2020						<1	5.9
6/23/2020						<1	

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Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
6/25/2020		410	3.3	1.6	<1		5.6
6/26/2020	9						
9/29/2020	8.3	540	4.1	<1	<1		7.7
10/1/2020						<1	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
12/14/2005				133		
4/5/2006				140		
10/30/2006				157		
5/10/2007				111		
11/17/2007				114		
5/2/2008				104		
10/22/2008				129		
5/12/2009	57.9	42.6	173			
5/13/2009						0.938
5/14/2009				157	109	
12/1/2009				142		
12/3/2009					107	0.422
12/4/2009		58.4	195			
12/5/2009	72.1					
5/25/2010		79.4	199			
5/26/2010	70.3			120	109	0.262
11/9/2010	74.8	111			100	<1
11/10/2010			189	100		
5/18/2011					110	
5/19/2011			186			0.359
5/24/2011	87.2	171				
5/25/2011				88.8		
11/11/2011				96.6	107	<1
11/12/2011	97.9	182	49.9			
5/17/2012			177	88.9	98	0.398
5/30/2012	103	194				
11/9/2012	140	842 (o)		70.1	90.4	0.545
11/10/2012			184			
5/7/2013			195		96.2	0.797
5/8/2013		173		80.5		
5/13/2013	160					
11/5/2013			178	71.6	86.9	
11/6/2013	146	471 (o)				0.86
5/20/2014		145				
5/21/2014	217			80.4	106	1.02
5/28/2014			201			
11/17/2014	97	110		71		
11/18/2014					99	1.2
11/19/2014			150			
4/7/2015	125	145		70.6	82.3	1.14
4/15/2015			195			
10/28/2015	106	82.7		12.2	78	1.02
10/29/2015			147			
6/23/2016				61	78	1
6/24/2016	170	79	200			
8/31/2016				57	72	1.1
9/1/2016	130	94	200			
10/25/2016	200	73		56		4.7 (o)
10/26/2016			200		77	
1/26/2017	130	110		57	75	1.1
1/27/2017			200			
4/11/2017	150	77				

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
4/12/2017			190	47	69	0.9 (J)
6/21/2017	130	75	200		73	
6/22/2017				49		0.99 (J)
10/25/2017			190	49		0.95 (J)
10/26/2017	110	61			72	
4/10/2018	130	58		46		
4/11/2018			200		69	0.9 (J)
10/16/2018	84					
10/17/2018		47	190	42	67	0.95 (J)
3/27/2019			190			
3/28/2019	220	59		45	66	1
10/9/2019	210	57	180	42	63	1.5
4/8/2020	200	47		39		
4/9/2020			190		59	1.1
6/23/2020					62	
6/24/2020	310	67	190			
6/25/2020				42		
6/26/2020						0.94 (J)
9/29/2020	200	66		38		
9/30/2020			170			
10/1/2020					57	0.82 (J)

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	<0.001				<0.001		
8/31/2016		<0.001	<0.001	<0.001			
9/1/2016						<0.001	
9/2/2016							9.5E-05 (J)
10/24/2016	<0.001						
10/25/2016		<0.001	<0.001	<0.001	<0.001	<0.001	
10/26/2016							<0.001
1/23/2017	<0.001		<0.001				
1/24/2017		<0.001		<0.001	<0.001		
1/26/2017							<0.001
1/27/2017						<0.001	
4/11/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
4/12/2017						<0.001	<0.001
6/20/2017			<0.001	<0.001	<0.001		
6/21/2017	<0.001	<0.001					<0.001
6/22/2017						<0.001	
10/25/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
10/26/2017						<0.001	<0.001
4/9/2018		<0.001	<0.001				
4/10/2018	<0.001			<0.001	<0.001		<0.001
4/11/2018						<0.001	
10/16/2018	<0.001	<0.001	<0.001	<0.001	<0.001		
10/17/2018						<0.001	<0.001
8/19/2019		<0.001					
8/20/2019	<0.001			0.0002 (J)	0.00023 (J)		
8/21/2019			<0.001			<0.001	<0.001
10/7/2019			<0.001				
10/8/2019	<0.001	<0.001		<0.001	<0.001		<0.001
10/9/2019						<0.001	
4/6/2020			<0.001				
4/7/2020	<0.001	<0.001		<0.001	0.00015 (J)		
4/8/2020						<0.001	<0.001
8/18/2020	<0.001	<0.001		0.00036 (J)	0.00021 (J)		
8/19/2020			<0.001			<0.001	<0.001
9/29/2020	<0.001	<0.001	0.00019 (J)	<0.001	0.00019 (J)		<0.001
10/1/2020						<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				<0.001	<0.001	<0.001
9/1/2016	<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001		<0.001		<0.001
10/26/2016			<0.001		<0.001	
1/26/2017	<0.001	<0.001		<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	<0.001	<0.001				
4/12/2017			<0.001	<0.001	<0.001	<0.001
6/21/2017	<0.001	<0.001	<0.001		<0.001	
6/22/2017				<0.001		<0.001
10/25/2017			<0.001	<0.001		<0.001
10/26/2017	<0.001	<0.001			<0.001	
4/10/2018	<0.001	<0.001		<0.001		
4/11/2018			<0.001		<0.001	<0.001
10/16/2018	<0.001					
10/17/2018		<0.001	<0.001	<0.001	<0.001	<0.001
8/20/2019	<0.001					
8/21/2019		<0.001	<0.001	<0.001	<0.001	<0.001
10/9/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/8/2020	<0.001	<0.001		<0.001		
4/9/2020			<0.001		<0.001	<0.001
8/18/2020		<0.001		<0.001		
8/19/2020	0.00027 (J)					<0.001
8/20/2020			<0.001		<0.001	
9/29/2020	0.00025 (J)	<0.001		<0.001		
9/30/2020			<0.001			
10/1/2020					<0.001	<0.001

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15
8/30/2016	100				58		
8/31/2016		1000	330	80			
9/1/2016						100	
9/2/2016							150
10/24/2016	136						
10/25/2016		1280	459	65	34	65	
10/26/2016							125
1/23/2017	16		340				
1/24/2017		590		70	120		
1/26/2017							86
1/27/2017						86	
4/11/2017	120	610	300	64	76		
4/12/2017						110	140
6/20/2017			210	52	36		
6/21/2017	140	880					120
6/22/2017						82	
10/25/2017	120	900	280	72	64		
10/26/2017						38	96
4/9/2018		440	280				
4/10/2018	130			86	60		130
4/11/2018						50	
10/16/2018	150	910	48	74	54		
10/17/2018						120	160
3/26/2019		750					
3/27/2019	110		330	69	61		150
3/28/2019						82	
10/7/2019			230				
10/8/2019	130	1500		66	68		130
10/9/2019						92	
4/6/2020			280				
4/7/2020	120	480		64	65		
4/8/2020						82	130
9/29/2020	130	880	210	62	61		130
10/1/2020						93	

Time Series

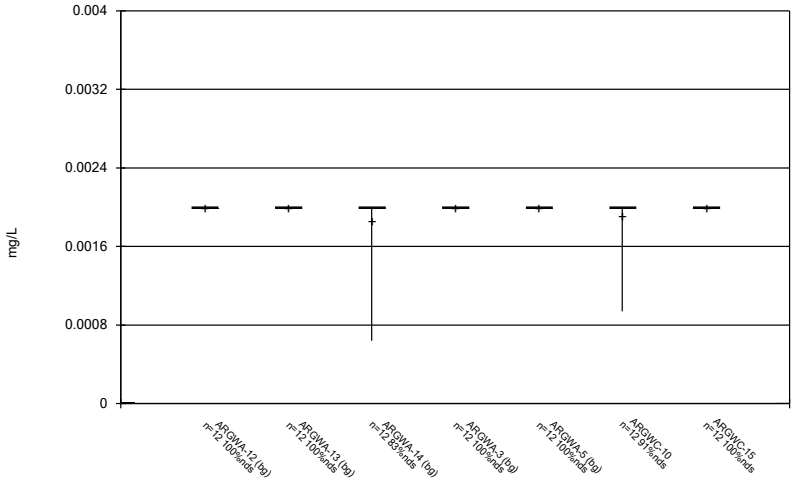
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 1:21 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-17	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9
8/31/2016				150	310	74
9/1/2016	240	220	450			
10/25/2016	304	114		171		67
10/26/2016			404		283	
1/26/2017	170	170		120	300	84
1/27/2017			460			
4/11/2017	260	160				
4/12/2017			430	150	310	88
6/21/2017	230	140	430		300	
6/22/2017				130		76
10/25/2017			380	130		60
10/26/2017	170	120			270	
4/10/2018	260	110		140		
4/11/2018			430		240	24
10/16/2018	140					
10/17/2018		140	470	180	120	96
3/27/2019			430			
3/28/2019	370	120		130	290	77
10/9/2019	350	120	420	130	290	75
4/8/2020	350	91		130		
4/9/2020			440		270	70
9/29/2020	340	140		140		
9/30/2020			390			
10/1/2020					270	55

FIGURE B.

Box & Whiskers Plot

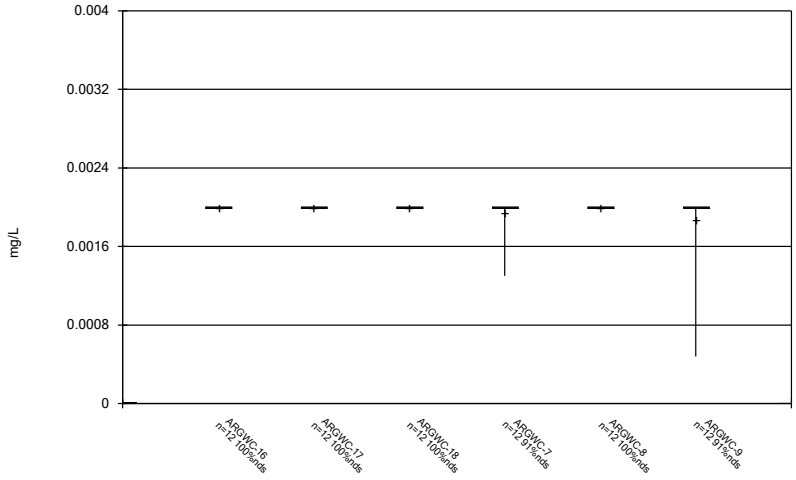


Constituent: Antimony Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

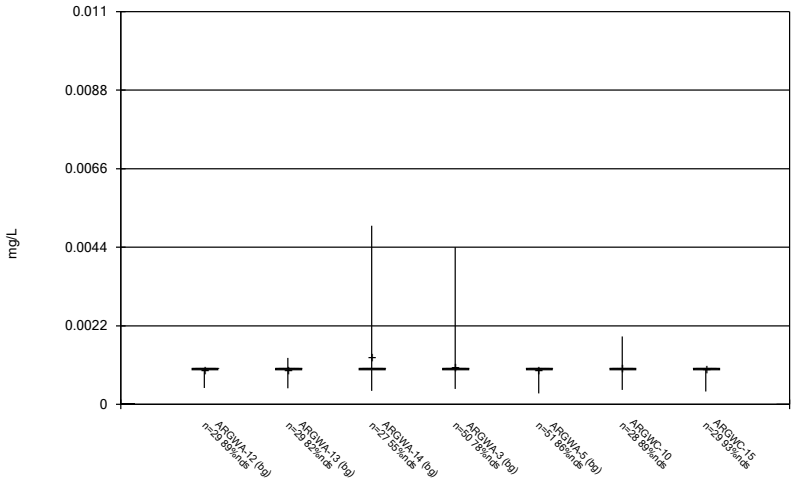


Constituent: Antimony Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

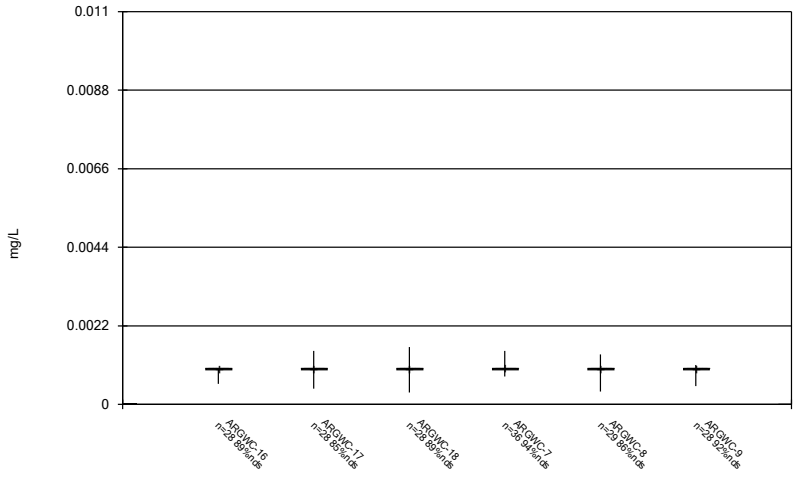


Constituent: Arsenic Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

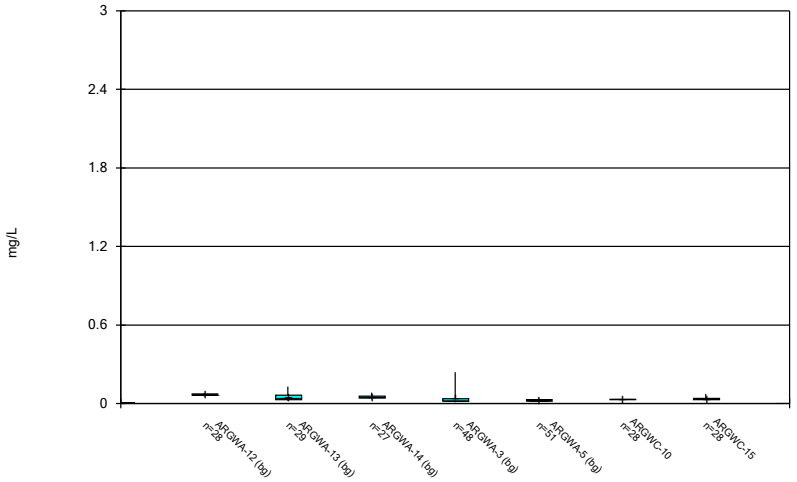
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

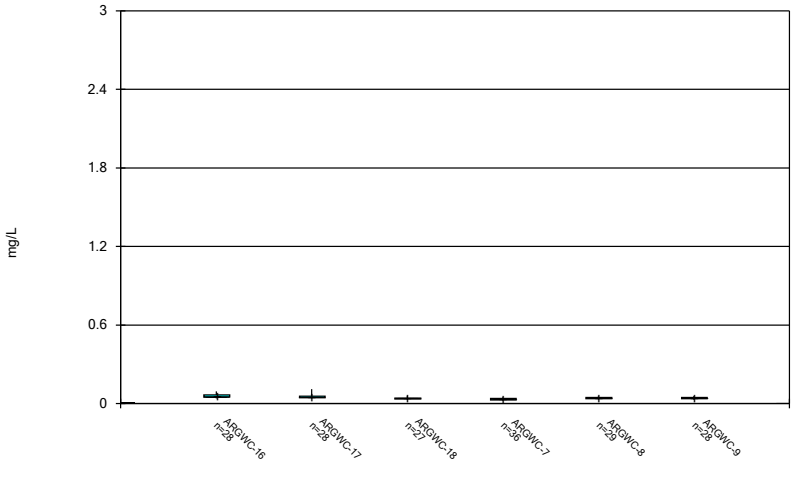


Constituent: Barium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

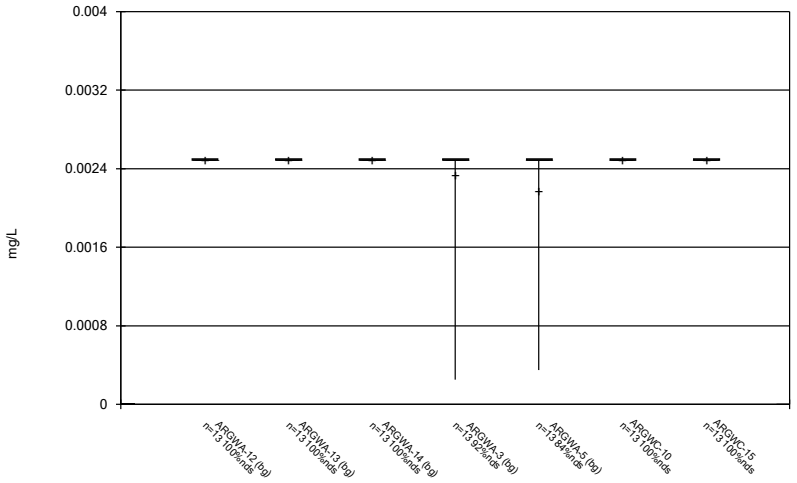


Constituent: Barium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

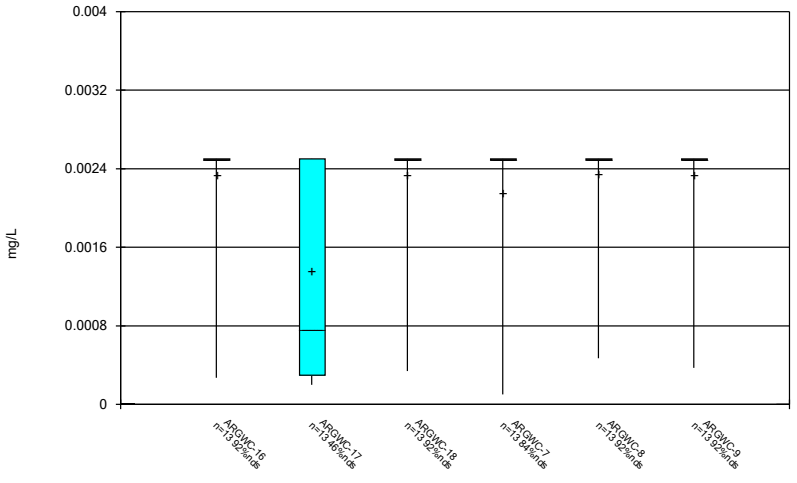


Constituent: Beryllium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

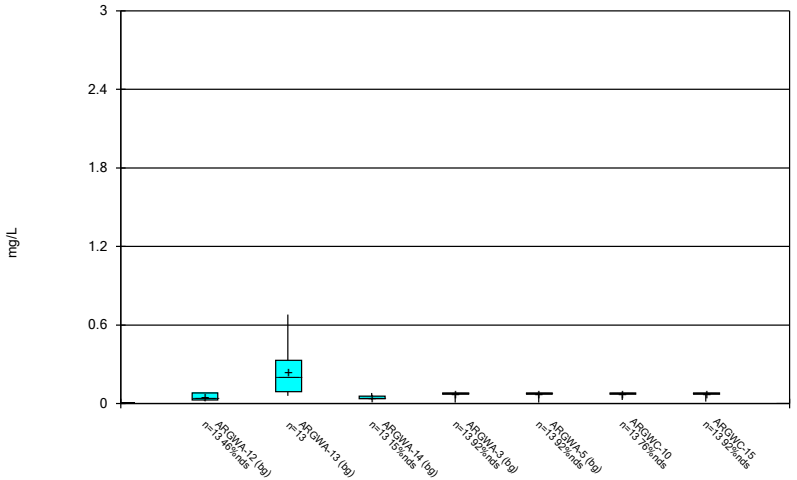
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

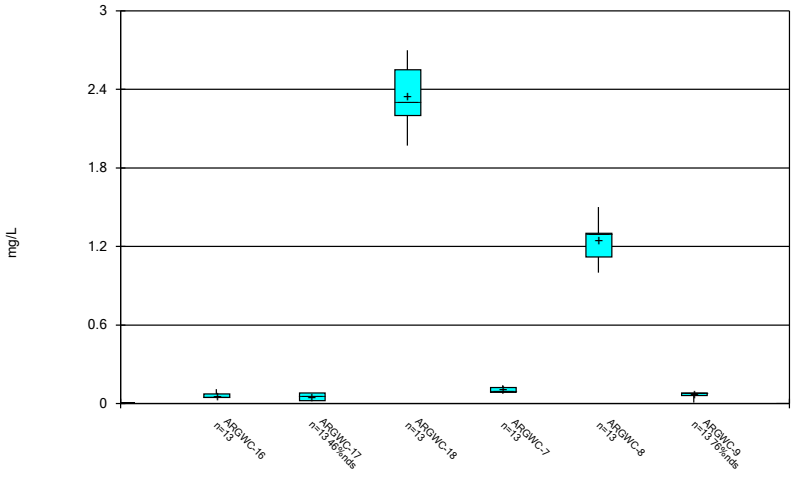


Constituent: Boron Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

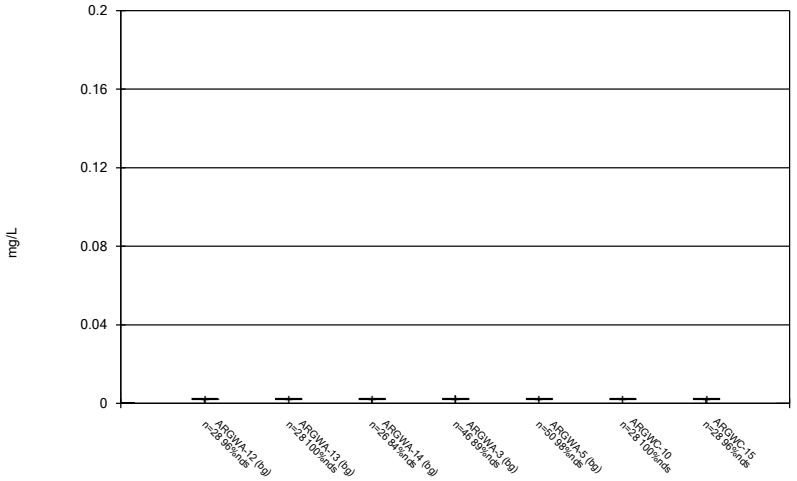


Constituent: Boron Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

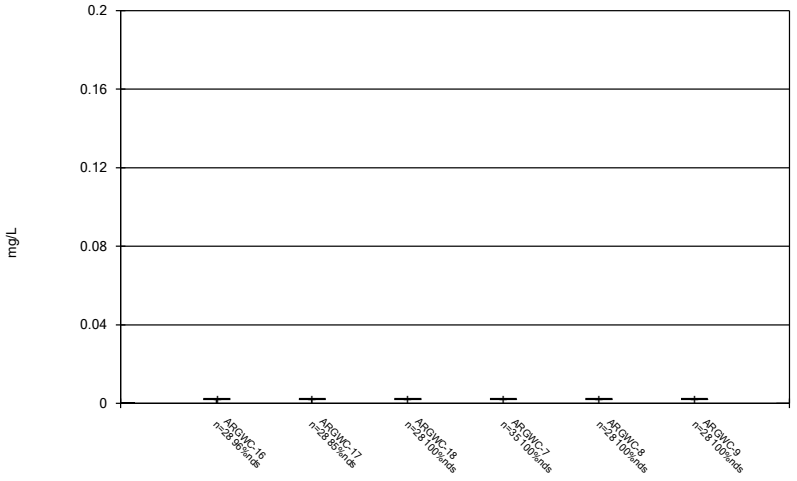


Constituent: Cadmium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

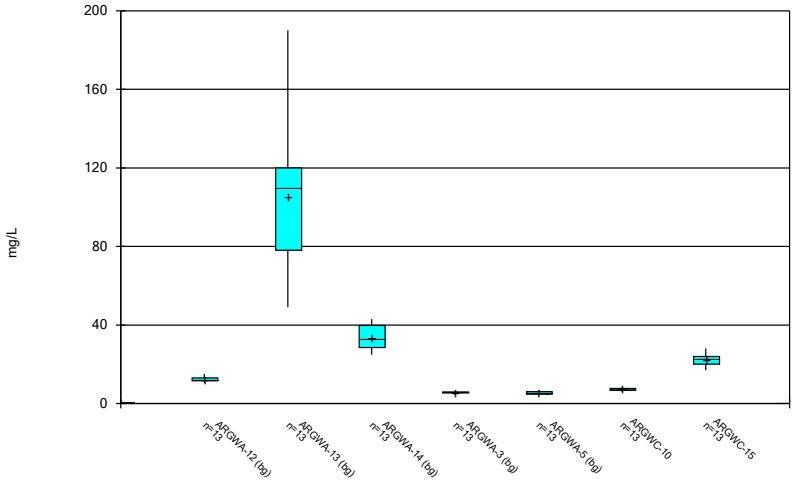
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

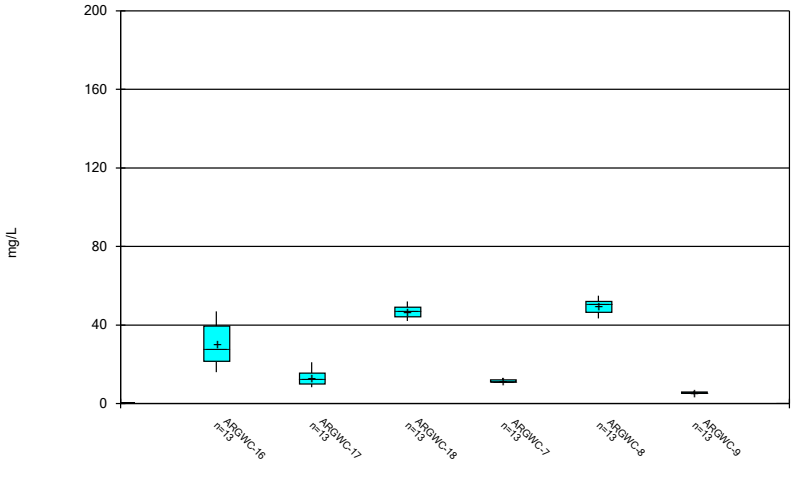


Constituent: Calcium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

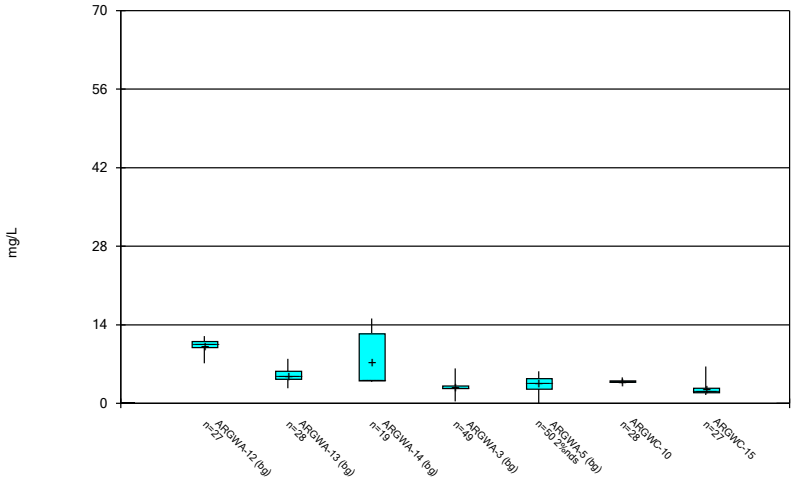


Constituent: Calcium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

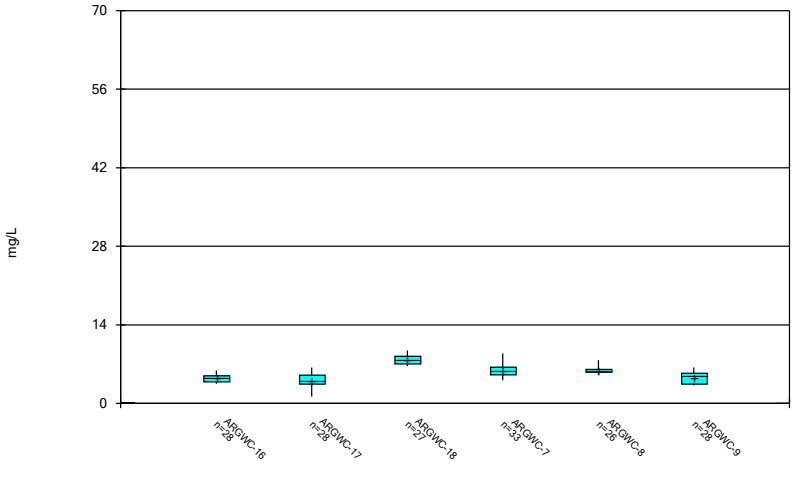


Constituent: Chloride Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

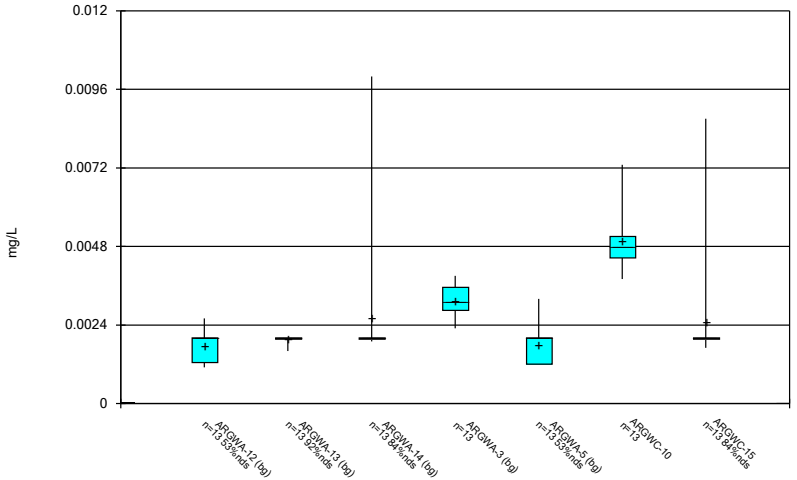
Box & Whiskers Plot



Constituent: Chloride Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

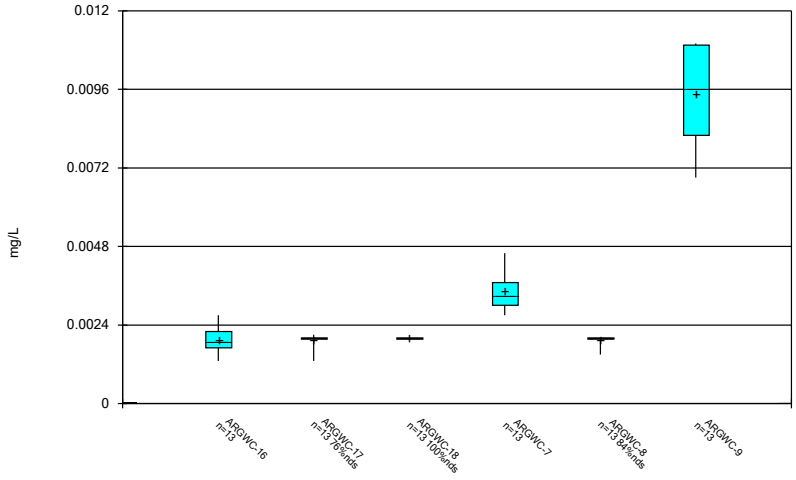


Constituent: Chromium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

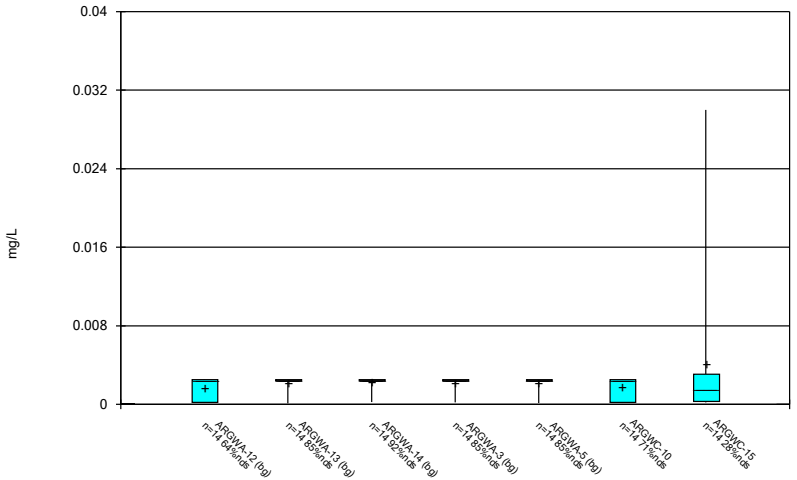


Constituent: Chromium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

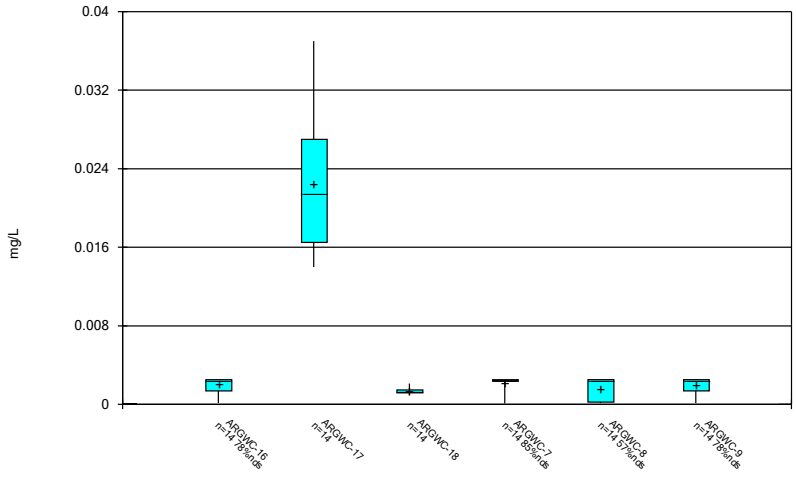


Constituent: Cobalt Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

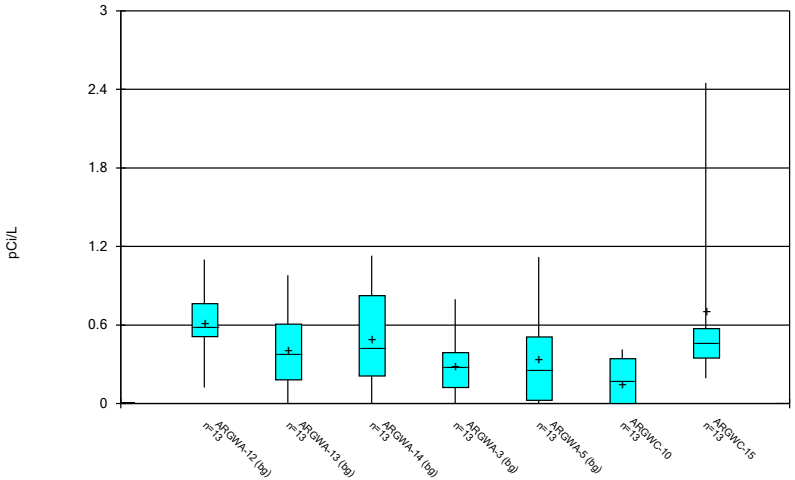
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

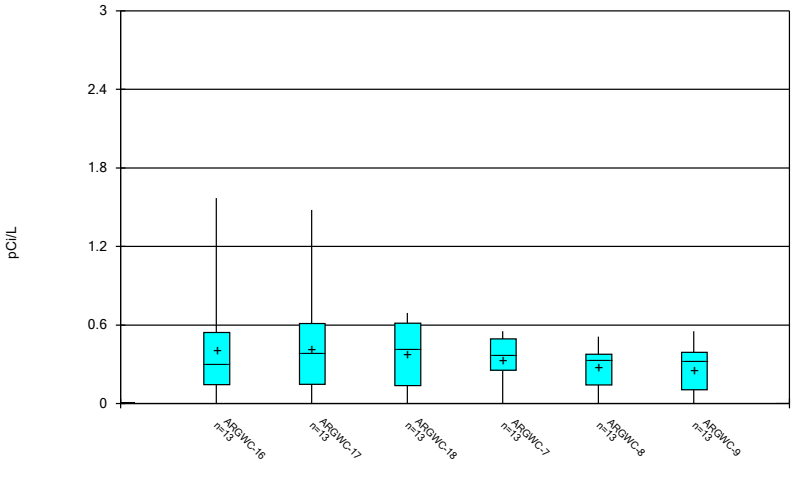


Constituent: Combined Radium 226 + 228 Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

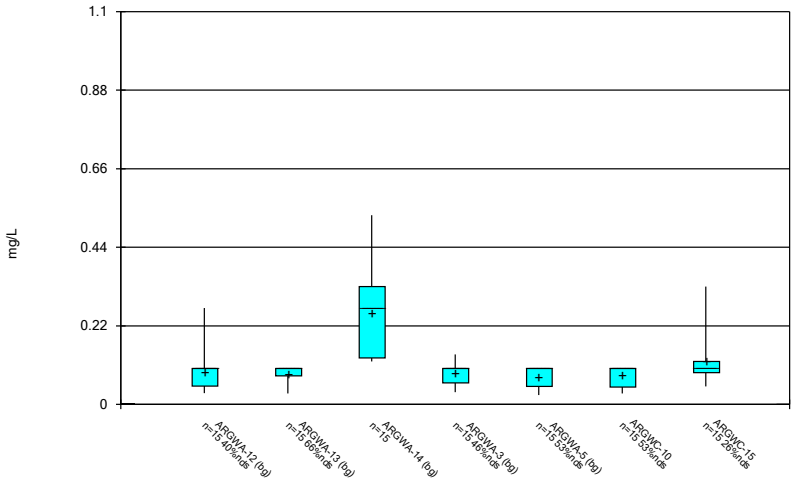


Constituent: Combined Radium 226 + 228 Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

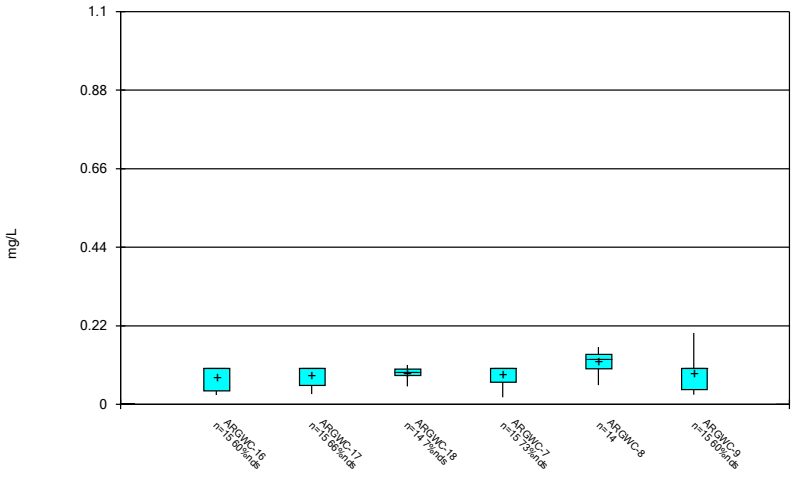


Constituent: Fluoride Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

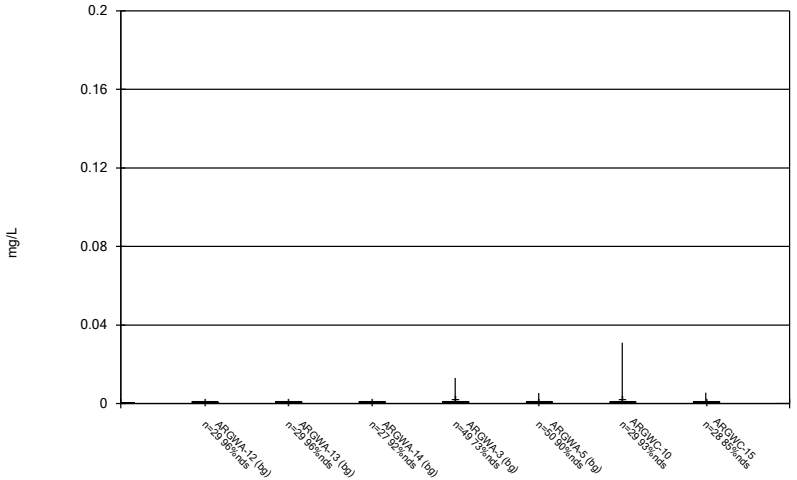
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

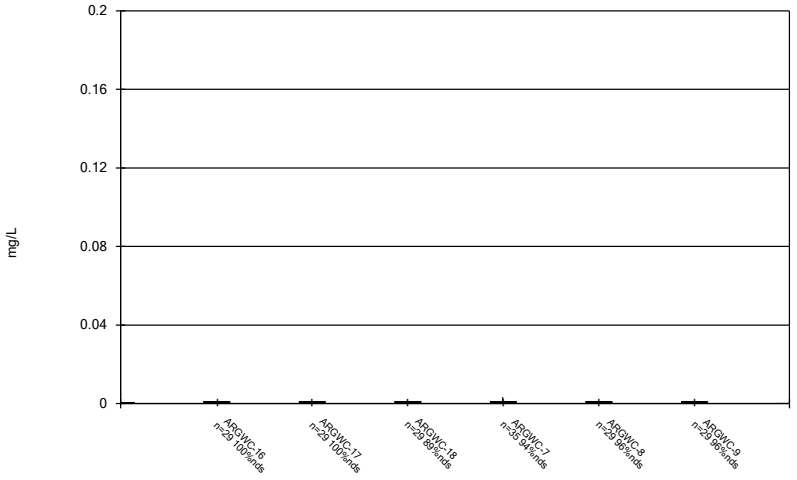


Constituent: Lead Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

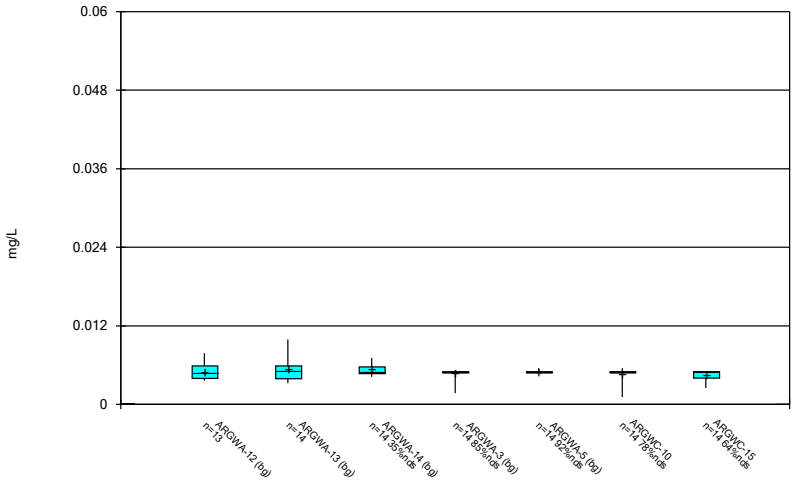


Constituent: Lead Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

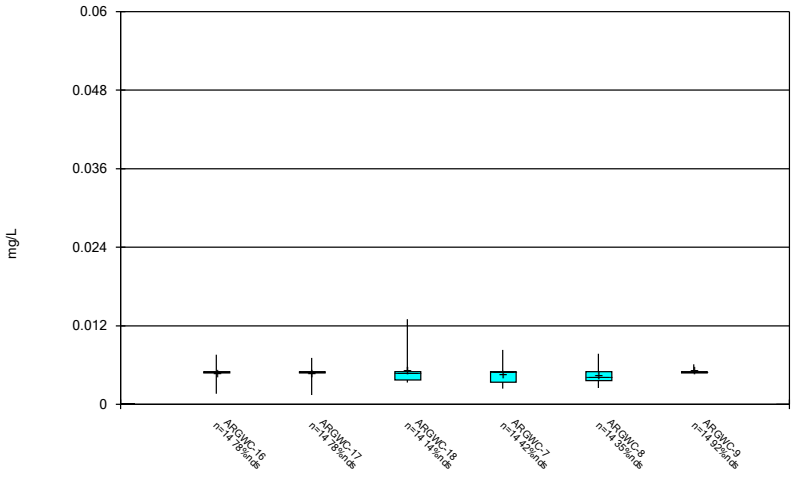


Constituent: Lithium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

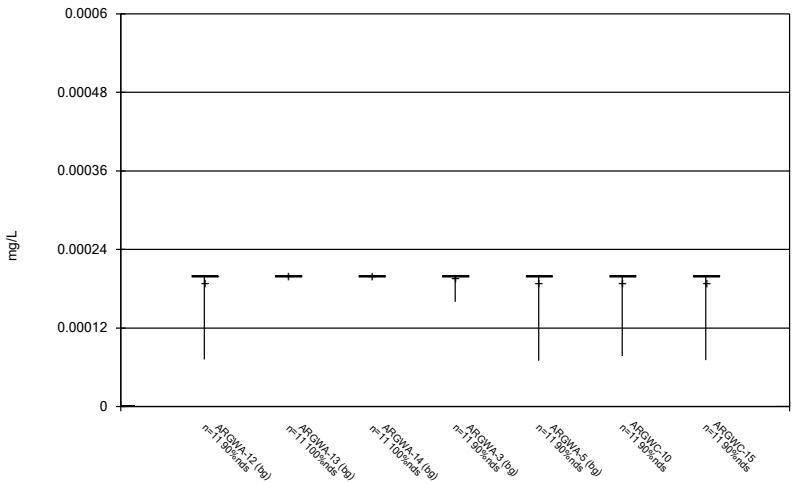
Box & Whiskers Plot



Constituent: Lithium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

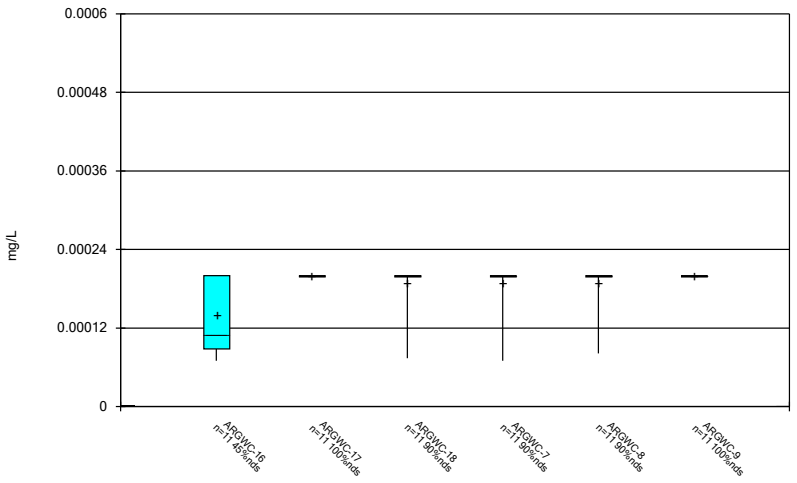


Constituent: Mercury Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

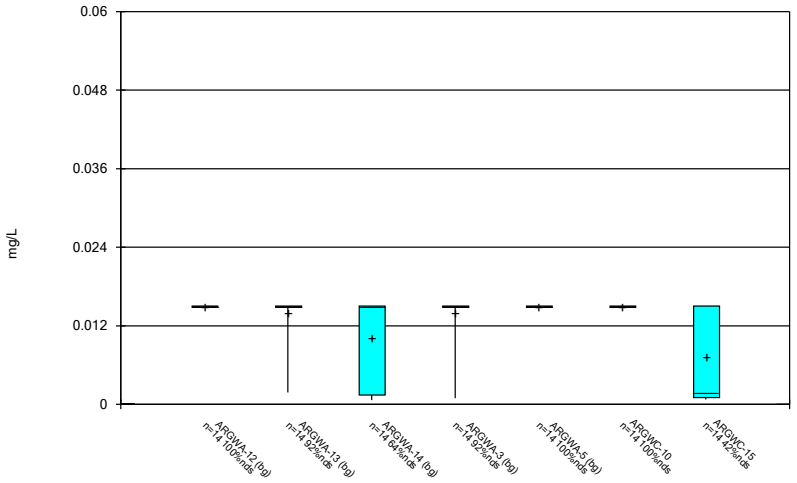


Constituent: Mercury Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

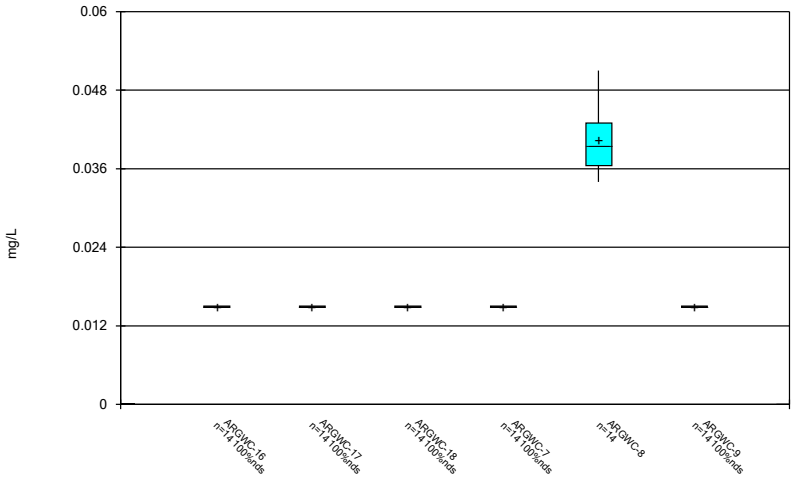


Constituent: Molybdenum Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

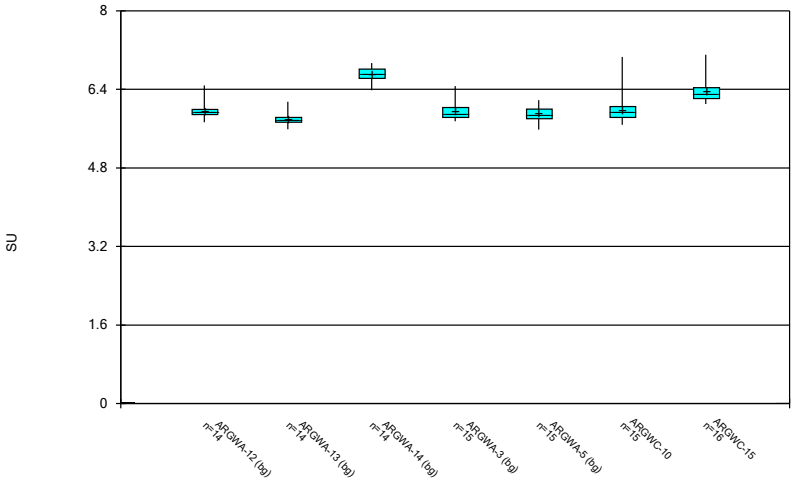
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

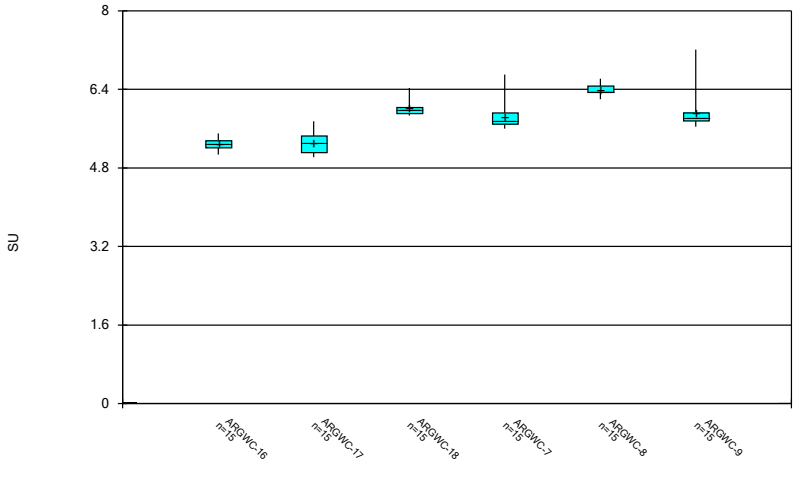


Constituent: pH Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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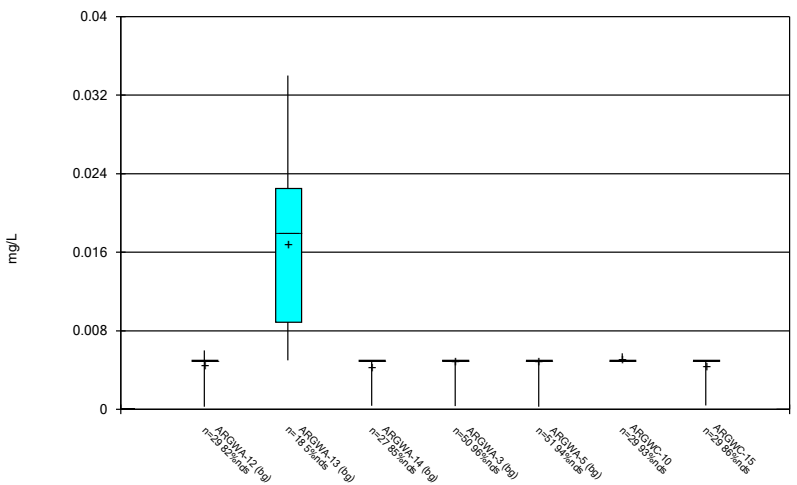
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

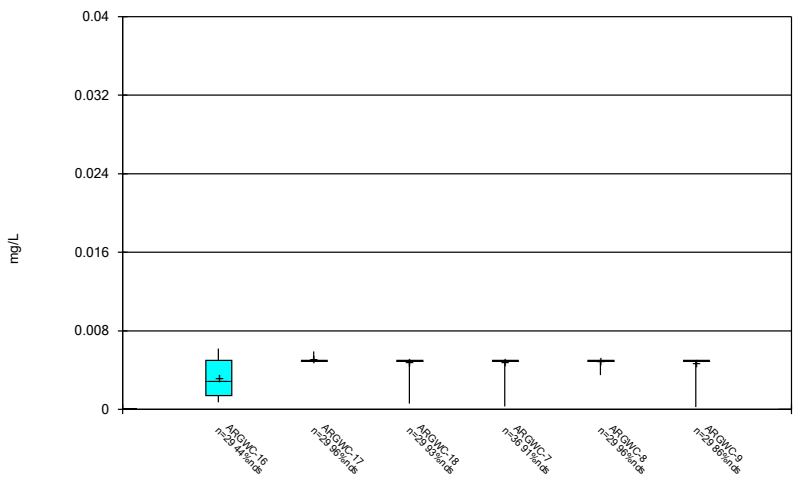


Constituent: Selenium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

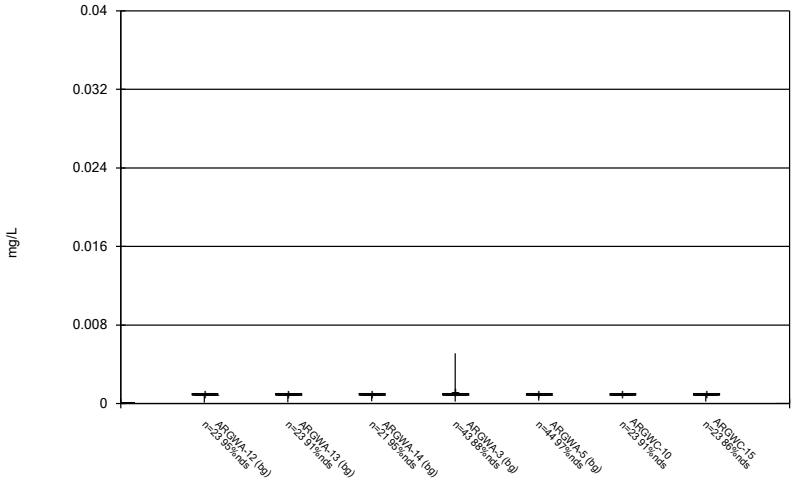
Box & Whiskers Plot



Constituent: Selenium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

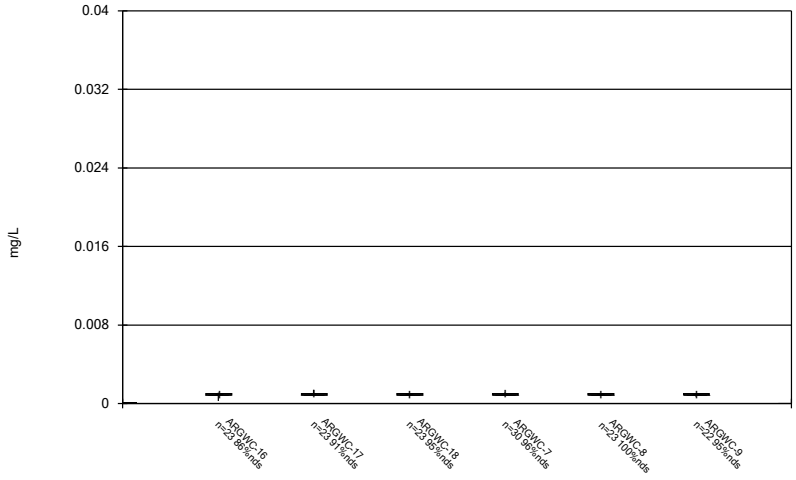


Constituent: Silver Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

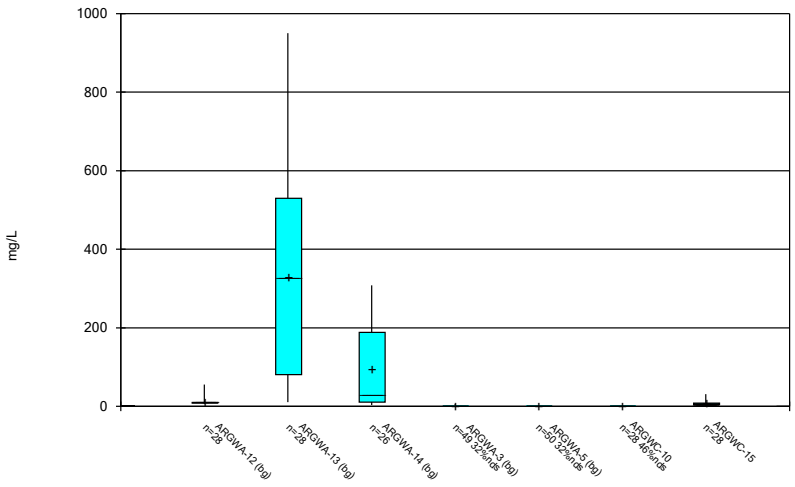


Constituent: Silver Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

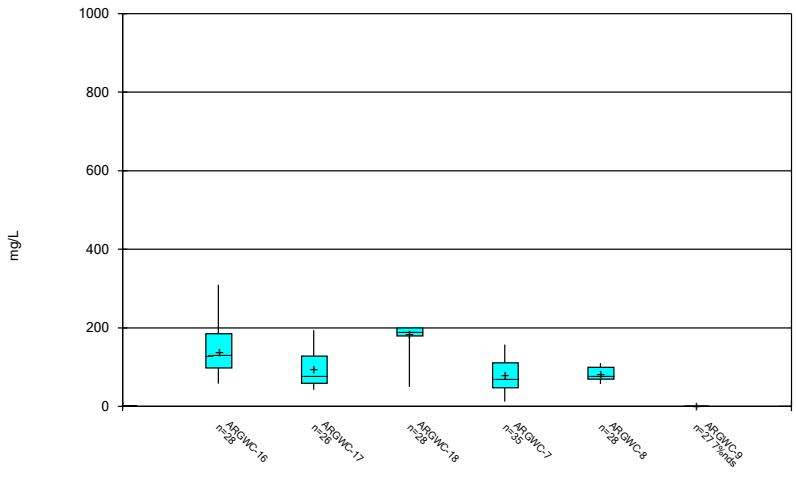


Constituent: Sulfate Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

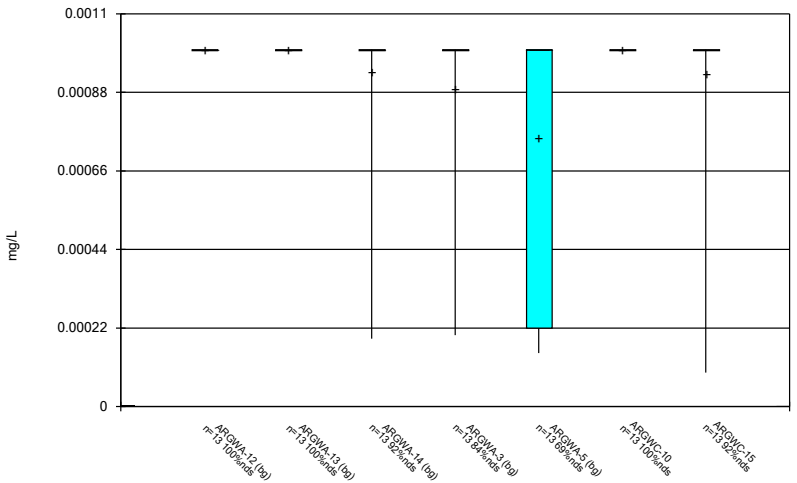
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Box & Whiskers Plot

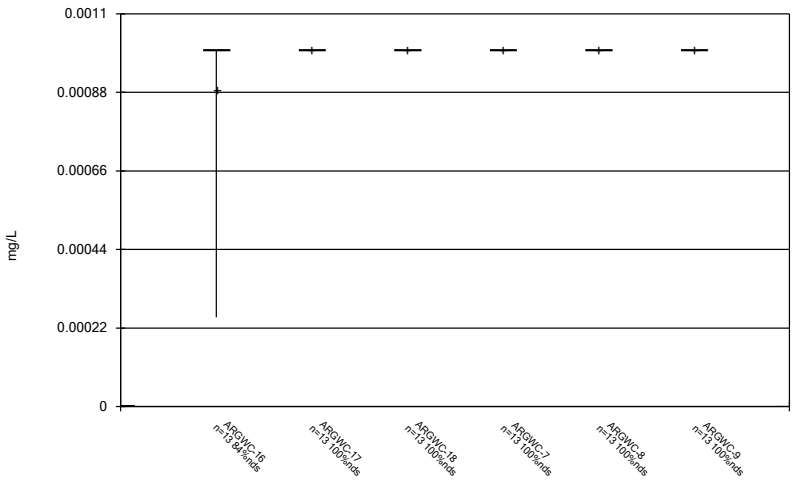


Constituent: Thallium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

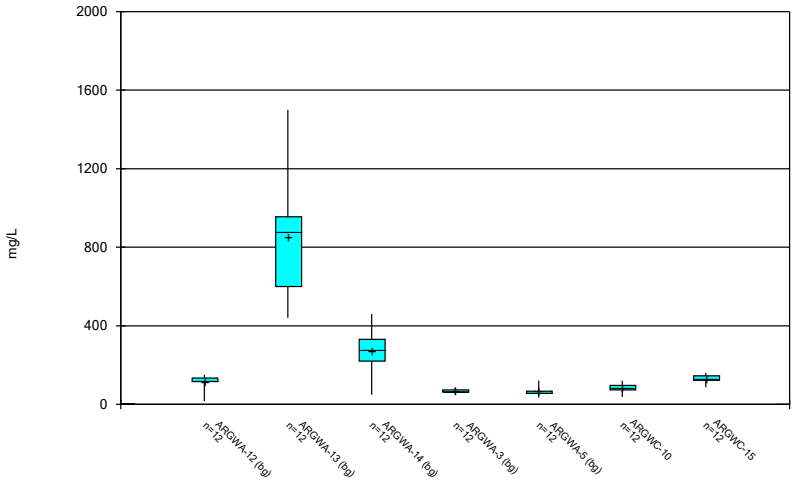


Constituent: Thallium Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

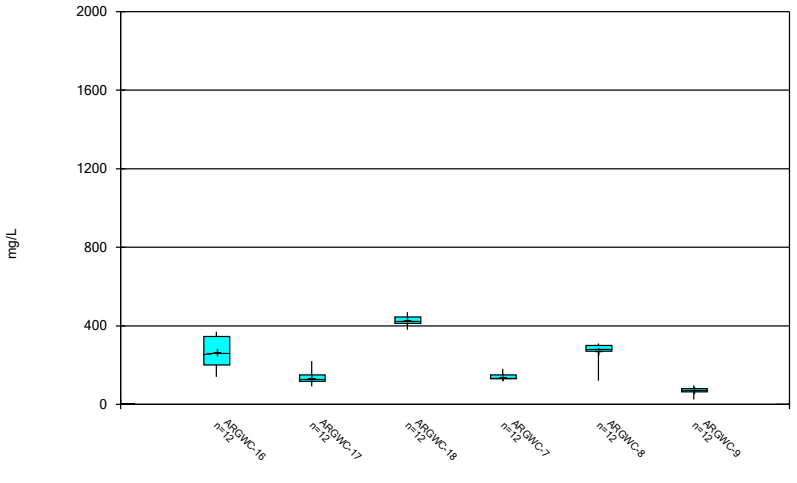


Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/3/2020 1:22 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 3

FIGURE C.

Outlier Summary

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 1:23 PM

	ARGWC-10 Arsenic (mg/L)	ARGWC-16 Arsenic (mg/L)	ARGWC-17 Arsenic (mg/L)	ARGWC-18 Arsenic (mg/L)	ARGWC-9 Arsenic (mg/L)	ARGWA-12 Barium (mg/L)	ARGWA-3 Barium (mg/L)	ARGWC-10 Barium (mg/L)	ARGWC-15 Barium (mg/L)	ARGWC-16 Barium (mg/L)	ARGWC-17 Barium (mg/L)	ARGWC-18 Barium (mg/L)	ARGWC-9 Barium (mg/L)
12/16/1997						2.12 (o)							
6/30/1998													
12/2/1998													
12/10/2003													
12/14/2004													
10/30/2006						<0.001 (o)							
11/17/2007													
5/2/2008													
5/12/2009		0.003 (o)		0.0025 (o)					0.16 (o)				
5/13/2009	0.0042 (o)				0.0034 (o)		0.15 (o)						0.14 (o)
5/25/2010						0.038 (o)							
11/9/2010													
5/19/2011													
11/9/2011													
11/12/2011												0.092 (o)	
5/30/2012													
11/9/2012			0.01 (o)							0.4 (o)			
11/11/2012													
5/9/2013													
5/13/2013								0.2 (o)					
11/5/2013												0.087 (o)	
11/6/2013													
5/21/2014													
5/29/2014													
11/19/2014													
8/30/2016													
8/31/2016													
10/24/2016													
10/25/2016													
10/26/2016													
10/8/2019													

Outlier Summary

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 1:23 PM

	ARGWA-3 Cadmium (mg/L)	ARGWA-12 Chloride (mg/L)	ARGWA-14 Chloride (mg/L)	ARGWC-15 Chloride (mg/L)	ARGWC-18 Chloride (mg/L)	ARGWC-7 Chloride (mg/L)	ARGWC-8 Chloride (mg/L)	ARGWC-18 Fluoride (mg/L)	ARGWC-8 Fluoride (mg/L)	ARGWA-3 Lead (mg/L)	ARGWA-5 Lead (mg/L)	ARGWC-15 Lead (mg/L)	ARGWC-7 Lead (mg/L)
12/16/1997	0.103 (o)								0.162 (o)				
6/30/1998	0.007 (o)												
12/2/1998	0.007 (o)												
12/10/2003													
12/14/2004										0.013 (o)			
10/30/2006													
11/17/2007						13.5 (o)							
5/2/2008						12.9 (o)						0.008 (o)	
5/12/2009													
5/13/2009													
5/25/2010													
11/9/2010							<0.071 (o)						
5/19/2011			28.2 (o)										
11/9/2011			32.8 (o)										
11/12/2011				12.3 (o)									
5/30/2012			30.8 (o)										
11/9/2012													
11/11/2012			24.6 (o)										
5/9/2013			27.2 (o)										
5/13/2013											0.025 (o)		
11/5/2013													
11/6/2013													
5/21/2014							7.34 (o)						
5/29/2014			20 (o)										
11/19/2014			19 (o)										
8/30/2016													
8/31/2016													
10/24/2016													
10/25/2016													
10/26/2016								0.32 (o)	0.43 (o)				
10/8/2019		64 (o)		9.4 (o)									

Outlier Summary

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 1:23 PM

	ARGWA-12 Lithium (mg/L)	ARGWA-12 pH (SU)	ARGWA-13 pH (SU)	ARGWA-14 pH (SU)	ARGWA-3 Silver (mg/L)	ARGWA-5 Silver (mg/L)	ARGWC-9 Silver (mg/L)	ARGWC-17 Sulfate (mg/L)	ARGWC-9 Sulfate (mg/L)
12/16/1997				0.035 (o)					
6/30/1998									
12/2/1998									
12/10/2003					0.002 (o)				
12/14/2004									
10/30/2006									
11/17/2007									
5/2/2008									
5/12/2009									
5/13/2009						0.0024 (o)			
5/25/2010									
11/9/2010									
5/19/2011									
11/9/2011									
11/12/2011									
5/30/2012									
11/9/2012							842 (o)		
11/11/2012									
5/9/2013									
5/13/2013									
11/5/2013									
11/6/2013							471 (o)		
5/21/2014									
5/29/2014									
11/19/2014									
8/30/2016		6.82 (o)							
8/31/2016			6.67 (o)	7.55 (o)					
10/24/2016	<0.05 (o)								
10/25/2016								4.7 (o)	
10/26/2016									
10/8/2019									

FIGURE D.

Appendix I - Interwell Prediction Limits - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:23 AM

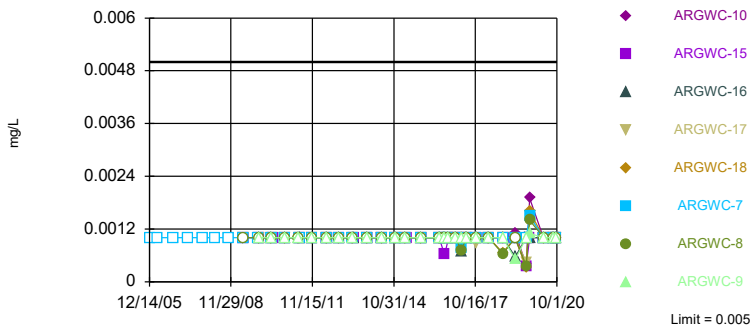
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-15	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-16	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-17	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-18	0.005	n/a	9/30/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-7	0.005	n/a	9/29/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-8	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-9	0.005	n/a	10/1/2020	0.001ND	No	186	n/a	n/a	79.57	n/a	n/a	0.00005715	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-10	0.24	n/a	10/1/2020	0.032	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-15	0.24	n/a	9/29/2020	0.03	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-16	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-17	0.24	n/a	9/29/2020	0.056	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-18	0.24	n/a	9/30/2020	0.041	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-7	0.24	n/a	9/29/2020	0.042	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-8	0.24	n/a	10/1/2020	0.052	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-9	0.24	n/a	10/1/2020	0.045	No	183	n/a	n/a	0	n/a	n/a	0.00005886	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-10	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-15	0.013	n/a	9/29/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-18	0.013	n/a	9/30/2020	0.0002J	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-8	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-9	0.013	n/a	10/1/2020	0.001ND	No	184	n/a	n/a	88.04	n/a	n/a	0.00005829	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-15	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-16	0.034	n/a	9/29/2020	0.0025J	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-7	0.034	n/a	9/29/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-9	0.034	n/a	10/1/2020	0.005ND	No	175	n/a	n/a	82.29	n/a	n/a	0.00006455	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-15	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-16	0.0051	n/a	9/29/2020	0.001ND	No	154	n/a	n/a	93.51	n/a	n/a	0.00008339	NP Inter (NDs) 1 of 2

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 186 background values. 79.57% NDs. Annual per-constituent alpha = 0.000914. Individual comparison alpha = 0.00005715 (1 of 2). Comparing 8 points to limit.

Constituent: Arsenic Analysis Run 12/4/2020 11:18 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

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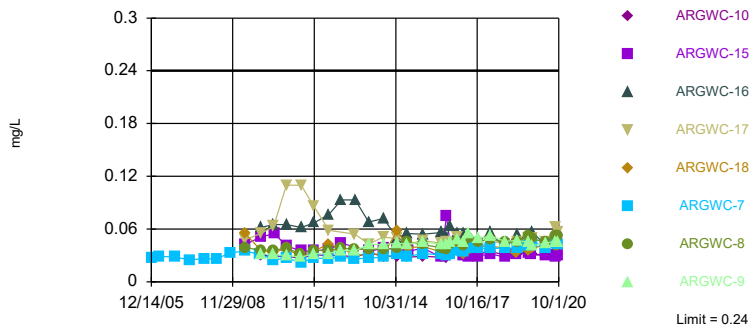
Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 183 background values. Annual per-constituent alpha = 0.0009414. Individual comparison alpha = 0.00005886 (1 of 2). Comparing 8 points to limit.

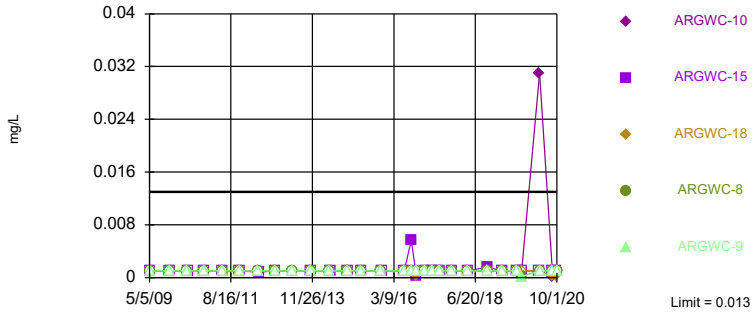
Constituent: Barium Analysis Run 12/4/2020 11:18 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 184 background values. 88.04% NDs. Annual per-constituent alpha = 0.0009323. Individual comparison alpha = 0.00005829 (1 of 2). Comparing 5 points to limit. Assumes 3 future values.

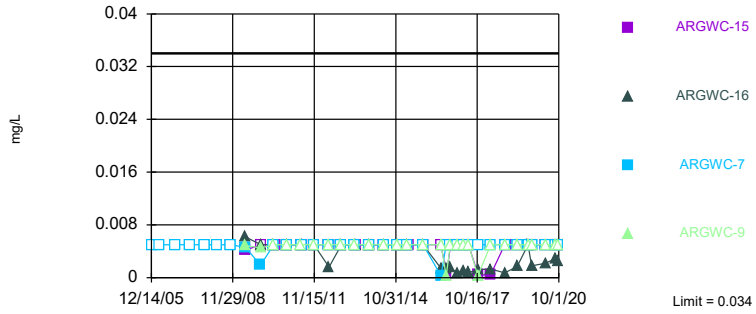
Constituent: Lead Analysis Run 12/4/2020 11:18 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 175 background values. 82.29% NDs. Annual per-constituent alpha = 0.001032. Individual comparison alpha = 0.00006455 (1 of 2). Comparing 4 points to limit. Assumes 4 future values.

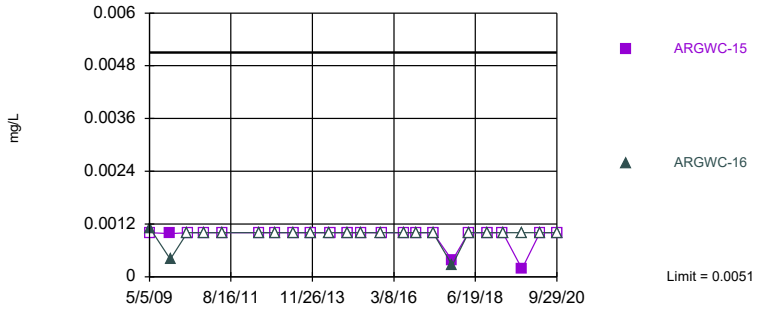
Constituent: Selenium Analysis Run 12/4/2020 11:18 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 154 background values. 93.51% NDs. Annual per-constituent alpha = 0.001333. Individual comparison alpha = 0.00008339 (1 of 2). Comparing 2 points to limit. Assumes 6 future values.

Constituent: Silver Analysis Run 12/4/2020 11:19 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-9
12/16/1997	0.002	<0.001							
6/30/1998	0.0006	<0.001							
12/2/1998	0.0007	<0.001							
6/8/1999	<0.001	<0.001							
12/7/1999	<0.001	<0.001							
6/15/2000	<0.001	<0.001							
12/12/2000	0.000475	0.00032							
12/5/2001	<0.001	0.0003							
6/26/2002	0.000431	0.000939							
12/3/2002	<0.001	<0.001							
6/11/2003	<0.001	<0.001							
12/10/2003	<0.001	<0.001							
6/15/2004	<0.001	<0.001							
12/14/2004	<0.001	<0.001							
6/2/2005	<0.001	<0.001							
12/14/2005	<0.001	<0.001	<0.001						
4/5/2006	<0.001	<0.001	<0.001						
10/30/2006	<0.001	<0.001	<0.001						
5/10/2007	0.0044	<0.001	<0.001						
11/17/2007	<0.001	<0.001	<0.001						
5/2/2008			<0.001						
5/3/2008	<0.001	<0.001							
10/22/2008	<0.001	<0.001	<0.001						
5/5/2009				<0.001					
5/6/2009		<0.001			<0.001				
5/7/2009	0.0028					0.0013			
5/12/2009							<0.001		
5/13/2009									0.0034 (o)
5/14/2009			<0.001					<0.001	
12/1/2009		<0.001	<0.001						
12/3/2009					<0.001	<0.001		<0.001	<0.001
12/4/2009	<0.001			<0.001			<0.001		
12/5/2009									
5/25/2010		<0.001			<0.001	<0.001	<0.001		
5/26/2010			<0.001					<0.001	<0.001
6/1/2010	<0.001			<0.001					
6/2/2010									
11/9/2010		<0.001			<0.001		<0.001	<0.001	<0.001
11/10/2010	<0.001		<0.001	<0.001		<0.001			
5/18/2011								<0.001	
5/19/2011									<0.001
5/24/2011		<0.001			<0.001		<0.001		
5/25/2011	<0.001		<0.001	<0.001		<0.001			
11/9/2011				<0.001					
11/10/2011		<0.001			<0.001	<0.001			
11/11/2011			<0.001					<0.001	<0.001
11/12/2011	<0.001						<0.001		
5/17/2012			<0.001					<0.001	<0.001
5/18/2012		<0.001			<0.001				
5/30/2012						<0.001	<0.001		
5/31/2012	<0.001			<0.001					
11/9/2012		<0.001	<0.001		<0.001	<0.001	0.01 (o)	<0.001	<0.001

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-9
11/10/2012				<0.001					
11/11/2012	<0.001								
5/7/2013								<0.001	<0.001
5/8/2013		<0.001	<0.001		<0.001		<0.001		
5/9/2013						<0.001			
5/13/2013	<0.001			<0.001					
11/5/2013			<0.001					<0.001	
11/6/2013		<0.001			<0.001		<0.001		<0.001
11/11/2013						<0.001			
11/12/2013	<0.001			<0.001					
5/20/2014		<0.001			<0.001		<0.001		
5/21/2014			<0.001			<0.001		<0.001	<0.001
5/28/2014				<0.001					
5/29/2014	<0.001								
11/17/2014		<0.001	<0.001				<0.001		
11/18/2014					<0.001	<0.001		<0.001	<0.001
11/19/2014									
11/20/2014				<0.001					
4/7/2015		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
4/14/2015	<0.001			<0.001	<0.001				
4/15/2015									
10/28/2015		<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
10/29/2015					<0.001				
11/3/2015	<0.001			<0.001					
11/4/2015									
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
6/24/2016							<0.001		
8/30/2016		<0.001			<0.001				
8/31/2016	<0.001		<0.001			<0.001		<0.001	<0.001
9/1/2016							<0.001		
9/2/2016				0.00062 (J)					
10/24/2016					<0.001				
10/25/2016	<0.001	<0.001	<0.001			<0.001	<0.001		<0.001
10/26/2016				<0.001				<0.001	
1/23/2017					<0.001				
1/24/2017	<0.001	<0.001				<0.001			
1/26/2017			<0.001	<0.001			<0.001	<0.001	<0.001
1/27/2017									
4/11/2017	0.00067 (J)	0.00077 (J)			0.00076 (J)	0.00063 (J)	0.00084 (J)		
4/12/2017			0.00078 (J)	<0.001				0.00072 (J)	<0.001
6/20/2017	0.00064 (J)	0.00052 (J)							
6/21/2017				<0.001	<0.001	<0.001	<0.001	<0.001	
6/22/2017			<0.001						<0.001
10/25/2017	<0.001	<0.001	<0.001		<0.001	<0.001			<0.001
10/26/2017				<0.001			0.00087 (J)	<0.001	
4/9/2018						<0.001			
4/10/2018	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		
4/11/2018								<0.001	<0.001
10/16/2018	<0.001	<0.001			<0.001	0.00055 (J)			
10/17/2018			<0.001	<0.001			<0.001	0.00063 (J)	<0.001
3/26/2019						0.00089 (J)			
3/27/2019	0.00055 (J)	0.00055 (J)		<0.001	0.00049 (J)				

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-9
3/28/2019			<0.001				<0.001	<0.001	0.00051 (J)
8/19/2019						0.00045 (J)			
8/20/2019	0.00045 (J)	0.00058 (J)			0.00046 (J)				
8/21/2019			<0.001	0.00036 (J)			0.00044 (J)	0.00036 (J)	<0.001
10/7/2019									
10/8/2019	<0.001	<0.001		<0.001	<0.001	<0.001			
10/9/2019			0.0015				0.0015	0.0014	0.0011
4/6/2020									
4/7/2020	<0.001	<0.001			<0.001	<0.001			
4/8/2020			<0.001	<0.001			<0.001		
4/9/2020								<0.001	<0.001
8/18/2020	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001		
8/19/2020				<0.001					<0.001
8/20/2020								<0.001	
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
9/30/2020									
10/1/2020								<0.001	<0.001

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-18	ARGWC-16	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009		0.0025 (o)	0.003 (o)	
5/13/2009	0.0042 (o)			
5/14/2009				
12/1/2009				
12/3/2009	<0.001			
12/4/2009		<0.001		
12/5/2009			<0.001	
5/25/2010		<0.001		
5/26/2010	<0.001		<0.001	
6/1/2010				
6/2/2010				<0.001
11/9/2010	<0.001		<0.001	
11/10/2010		<0.001		<0.001
5/18/2011				
5/19/2011	<0.001	<0.001		<0.001
5/24/2011			<0.001	
5/25/2011				
11/9/2011				<0.001
11/10/2011				
11/11/2011	<0.001			
11/12/2011		<0.001	<0.001	
5/17/2012	<0.001	<0.001		
5/18/2012				
5/30/2012			<0.001	0.0026 (J)
5/31/2012				
11/9/2012	<0.001		<0.001	

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-18	ARGWC-16	ARGWA-14 (bg)
11/10/2012		<0.001		
11/11/2012				<0.001
5/7/2013	<0.001	<0.001		
5/8/2013				
5/9/2013				<0.001
5/13/2013			<0.001	
11/5/2013		<0.001		
11/6/2013	<0.001		<0.001	
11/11/2013				<0.001
11/12/2013				
5/20/2014	<0.001			
5/21/2014			<0.001	
5/28/2014		<0.001		
5/29/2014				0.005 (J)
11/17/2014			<0.001	
11/18/2014	<0.001			
11/19/2014		<0.001		<0.001
11/20/2014				
4/7/2015	<0.001		<0.001	
4/14/2015				<0.001
4/15/2015		<0.001		
10/28/2015	<0.001		<0.001	
10/29/2015		<0.001		
11/3/2015				
11/4/2015				<0.001
6/23/2016	<0.001			0.0026
6/24/2016		<0.001	<0.001	
8/30/2016				
8/31/2016				0.0032
9/1/2016	<0.001	<0.001	<0.001	
9/2/2016				
10/24/2016				
10/25/2016	<0.001		<0.001	<0.001
10/26/2016		<0.001		
1/23/2017				0.00088 (J)
1/24/2017				
1/26/2017			<0.001	
1/27/2017	<0.001	<0.001		
4/11/2017			0.00067 (J)	0.00095 (J)
4/12/2017	<0.001	<0.001		
6/20/2017				0.00099 (J)
6/21/2017		<0.001	<0.001	
6/22/2017	<0.001			
10/25/2017		<0.001		<0.001
10/26/2017	<0.001		<0.001	
4/9/2018				<0.001
4/10/2018			<0.001	
4/11/2018	<0.001	<0.001		
10/16/2018			<0.001	0.00083 (J)
10/17/2018	<0.001	0.00066 (J)		
3/26/2019				
3/27/2019		<0.001		0.0013

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-18	ARGWC-16	ARGWA-14 (bg)
3/28/2019	0.0011 (J)		0.00057 (J)	
8/19/2019				
8/20/2019			<0.001	
8/21/2019	0.0004 (J)	0.00033 (J)		0.0013
10/7/2019				0.00045 (J)
10/8/2019				
10/9/2019	0.0019	0.0016	0.001	
4/6/2020				<0.001
4/7/2020				
4/8/2020	<0.001		<0.001	
4/9/2020		<0.001		
8/18/2020				
8/19/2020	<0.001		<0.001	<0.001
8/20/2020		<0.001		
9/29/2020			<0.001	0.00038 (J)
9/30/2020		<0.001		
10/1/2020	<0.001			

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-18	ARGWC-8
12/16/1997	0.032	2.12 (o)							
6/30/1998	0.028	0.177							
12/2/1998	0.032	0.115							
6/8/1999	0.0287	0.074							
12/7/1999	0.034	0.043							
6/15/2000	0.034	0.113							
12/12/2000	0.027	0.059							
12/5/2001	0.027	0.052							
6/26/2002	0.032	0.087							
12/3/2002	0.023	0.043							
6/11/2003	0.04	0.24							
12/10/2003	0.024	0.03							
6/15/2004	0.021	0.028							
12/14/2004	0.025	0.017							
6/2/2005	0.025	0.019							
12/14/2005	0.026	0.02	0.027						
4/5/2006	0.027	0.019	0.029						
10/30/2006	0.027	<0.001 (o)	0.028						
5/10/2007	0.024	0.017	0.025						
11/17/2007	0.026	0.015	0.026						
5/2/2008			0.026						
5/3/2008	0.022	0.017							
10/22/2008	0.027	0.11	0.033						
5/5/2009				0.042					
5/6/2009	0.023				0.065				
5/7/2009		0.13				0.068			
5/12/2009							0.048	0.055	
5/13/2009									
5/14/2009			0.035						0.039
12/1/2009	0.033		0.031						
12/3/2009					0.062	0.044			0.036
12/4/2009		0.019		0.051			0.055	0.036	
12/5/2009									
5/25/2010	0.03				0.038 (o)	0.049	0.063	0.033	
5/26/2010			0.025						0.036
6/1/2010		0.027		0.055					
6/2/2010									
11/9/2010	0.033				0.059		0.11		0.038
11/10/2010		0.025	0.027	0.041		0.052		0.038	
5/18/2011									0.032
5/19/2011								0.028	
5/24/2011	0.027				0.054		0.11		
5/25/2011		0.015	0.022	0.035		0.045			
11/9/2011				0.035					
11/10/2011	0.032				0.063	0.11			
11/11/2011			0.027						0.036
11/12/2011		0.021					0.086	0.092 (o)	
5/17/2012			0.0265					0.0427	0.0353
5/18/2012	0.0311				0.0646				
5/30/2012						0.0831	0.0586		
5/31/2012		0.0222		0.0372					
11/9/2012	0.034		0.028		0.081	0.13	0.4 (o)		0.038

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-18	ARGWC-8
11/10/2012				0.044				0.038	
11/11/2012		0.022							
5/7/2013								0.03	0.037
5/8/2013	0.026		0.026		0.066		0.054		
5/9/2013						0.059			
5/13/2013		0.019		0.2 (o)					
11/5/2013			0.027					0.087 (o)	0.037
11/6/2013	0.028				0.074		0.043		
11/11/2013						0.12			
11/12/2013		0.025		0.035					
5/20/2014	0.027				0.057		0.051		
5/21/2014			0.028			0.073			0.037
5/28/2014				0.038				0.032	
5/29/2014		0.024							
11/17/2014	0.029		0.031				0.049		
11/18/2014					0.069	0.072			0.038
11/19/2014								0.058	
11/20/2014				0.037					
4/7/2015	0.024		0.029			0.06	0.043		0.045
4/14/2015		0.022		0.035	0.067				
4/15/2015								0.039	
10/28/2015	0.028		0.032			0.057	0.047		0.042
10/29/2015					0.069			0.04	
11/3/2015		0.022		0.038					
11/4/2015									
6/23/2016	0.025	0.019	0.031	0.028	0.063	0.036			0.039
6/24/2016							0.044	0.034	
8/30/2016	0.026				0.062				
8/31/2016		0.018	0.03			0.041			0.037
9/1/2016							0.046	0.033	
9/2/2016				0.074					
10/24/2016					0.0674				
10/25/2016	0.0293	0.016	0.0317			0.0429	0.0436		
10/26/2016				0.0408				0.0339	0.0423
1/23/2017					0.069				
1/24/2017	0.028	0.017				0.025			
1/26/2017			0.035	0.038			0.051		0.046
1/27/2017								0.037	
4/11/2017	0.024	0.016			0.064	0.024	0.043		
4/12/2017			0.034	0.03				0.032	0.041
6/20/2017	0.027	0.02							
6/21/2017				0.028	0.074	0.034	0.043	0.036	0.049
6/22/2017			0.038						
10/25/2017	0.03	0.019	0.038		0.07	0.03		0.041	
10/26/2017				0.029			0.038		0.046
4/9/2018						0.023			
4/10/2018	0.028	0.019	0.038	0.032	0.073		0.046		
4/11/2018								0.04	0.048
10/16/2018	0.027	0.018			0.069	0.028			
10/17/2018			0.038	0.028			0.043	0.039	0.045
3/26/2019						0.029			
3/27/2019	0.024	0.019		0.032	0.063			0.033	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-18	ARGWC-8
3/28/2019			0.038				0.045		0.045
8/19/2019						0.035			
8/20/2019	0.029	0.02			0.075				
8/21/2019			0.041	0.033			0.05	0.036	0.052
10/7/2019									
10/8/2019	0.03	0.02		0.031	0.078	0.042			
10/9/2019			0.046				0.049	0.039	0.049
4/6/2020									
4/7/2020	0.02	0.018			0.066	0.021			
4/8/2020			0.039	0.03			0.045		
4/9/2020								0.041	0.045
8/18/2020	0.031	0.021	0.044		0.079	0.025	0.062		
8/19/2020				0.028					
8/20/2020								0.041	0.053
9/29/2020	0.03	0.019	0.042	0.03	0.079	0.024	0.056		
9/30/2020								0.041	
10/1/2020									0.052

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-16	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009			0.16 (o)	
5/13/2009	0.14 (o)	0.15 (o)		
5/14/2009				
12/1/2009				
12/3/2009	0.032	0.03		
12/4/2009				
12/5/2009			0.062	
5/25/2010				
5/26/2010	0.031	0.029	0.065	
6/1/2010				
6/2/2010				0.046
11/9/2010	0.03	0.029	0.065	
11/10/2010				0.057
5/18/2011				
5/19/2011	0.028	0.027		0.048
5/24/2011			0.062	
5/25/2011				
11/9/2011				0.045
11/10/2011				
11/11/2011	0.032	0.031		
11/12/2011			0.067	
5/17/2012	0.0319	0.0299		
5/18/2012				
5/30/2012			0.0767	0.0519
5/31/2012				
11/9/2012	0.036	0.03	0.093	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-16	ARGWA-14 (bg)
11/10/2012				
11/11/2012				0.051
5/7/2013	0.035	0.028		
5/8/2013				
5/9/2013				0.056
5/13/2013			0.093	
11/5/2013				
11/6/2013	0.043	0.033	0.068	
11/11/2013				0.041
11/12/2013				
5/20/2014		0.029		
5/21/2014	0.042		0.072	
5/28/2014				
5/29/2014				0.051
11/17/2014			0.05	
11/18/2014	0.044	0.029		
11/19/2014				0.051
11/20/2014				
4/7/2015	0.043	0.028	0.055	
4/14/2015				0.043
4/15/2015				
10/28/2015	0.045	0.029	0.054	
10/29/2015				
11/3/2015				
11/4/2015				0.042
6/23/2016	0.043	0.028		0.084
6/24/2016			0.056	
8/30/2016				
8/31/2016	0.042			0.076
9/1/2016		0.027	0.051	
9/2/2016				
10/24/2016				
10/25/2016	0.0455	0.0296	0.0637	0.039
10/26/2016				
1/23/2017				0.044
1/24/2017				
1/26/2017	0.048		0.055	
1/27/2017		0.035		
4/11/2017			0.055	0.038
4/12/2017	0.045	0.031		
6/20/2017				0.057
6/21/2017			0.054	
6/22/2017	0.055	0.035		
10/25/2017	0.049			0.05
10/26/2017		0.032	0.046	
4/9/2018				0.049
4/10/2018			0.056	
4/11/2018	0.052	0.034		
10/16/2018			0.039	0.06
10/17/2018	0.046	0.031		
3/26/2019				
3/27/2019				0.054

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-16	ARGWA-14 (bg)
3/28/2019	0.047	0.031	0.054	
8/19/2019				
8/20/2019			0.046	
8/21/2019	0.045	0.035		0.031
10/7/2019				0.033
10/8/2019				
10/9/2019	0.041	0.031	0.057	
4/6/2020				0.051
4/7/2020				
4/8/2020		0.031	0.042	
4/9/2020	0.044			
8/18/2020				
8/19/2020	0.046	0.034	0.045	0.041
8/20/2020				
9/29/2020			0.042	0.062
9/30/2020				
10/1/2020	0.045	0.032		

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10	ARGWC-8
12/16/1997	<0.001	0.162 (o)							
6/30/1998	<0.001	0.013							
12/2/1998	0.002	0.01							
6/8/1999	<0.001	0.004							
12/7/1999	<0.001	0.004							
6/15/2000	<0.001	0.004							
12/12/2000	<0.001	0.00378							
12/5/2001	<0.001	0.003							
6/26/2002	0.00539	0.00815							
12/3/2002	<0.001	0.008							
6/11/2003	<0.001	<0.001							
12/10/2003	<0.001	<0.001							
6/15/2004	<0.001	<0.001							
12/14/2004	0.013 (o)	<0.001							
6/2/2005	<0.001	<0.001							
12/14/2005	<0.001	<0.001							
4/5/2006	<0.001	<0.001							
10/30/2006	<0.001	<0.001							
5/10/2007	<0.001	<0.001							
11/17/2007	<0.001	<0.001							
5/3/2008	<0.001	<0.001							
10/22/2008	<0.001	<0.001							
5/5/2009			<0.001						
5/6/2009	<0.001			<0.001					
5/7/2009		<0.001			<0.001				
5/12/2009						<0.001			
5/13/2009							<0.001	<0.001	
5/14/2009									<0.001
12/1/2009	<0.001								
12/3/2009				<0.001	<0.001		<0.001	<0.001	<0.001
12/4/2009		<0.001	<0.001			<0.001			
5/25/2010	<0.001			<0.001	<0.001	<0.001			
5/26/2010							<0.001	<0.001	<0.001
6/1/2010		<0.001	<0.001						
6/2/2010									
11/9/2010	<0.001			<0.001			<0.001	<0.001	<0.001
11/10/2010		<0.001	<0.001		<0.001	<0.001			
5/18/2011									<0.001
5/19/2011						<0.001	<0.001	<0.001	
5/24/2011	<0.001			<0.001					
5/25/2011		<0.001	<0.001		<0.001				
11/9/2011			<0.001						
11/10/2011	<0.001			<0.001	<0.001				
11/11/2011							<0.001	<0.001	<0.001
11/12/2011		<0.001				<0.001			
5/17/2012						<0.001	<0.001	<0.001	<0.001
5/18/2012	<0.001			<0.001					
5/30/2012					<0.001				
5/31/2012		0.0005 (J)	0.0008 (J)						
11/9/2012	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
11/10/2012			<0.001			<0.001			
11/11/2012		<0.001							

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10	ARGWC-8
5/7/2013						<0.001	<0.001	<0.001	<0.001
5/8/2013	<0.001			<0.001					
5/9/2013					<0.001				
5/13/2013		<0.001	0.025 (o)						
11/5/2013						<0.001			<0.001
11/6/2013	<0.001			<0.001			<0.001	<0.001	
11/11/2013					<0.001				
11/12/2013		<0.001	<0.001						
5/20/2014	<0.001			<0.001				<0.001	
5/21/2014					<0.001		<0.001		<0.001
5/28/2014			<0.001			<0.001			
5/29/2014		<0.001							
11/17/2014	<0.001								
11/18/2014				<0.001	<0.001		<0.001	<0.001	<0.001
11/19/2014						<0.001			
11/20/2014			<0.001						
4/7/2015	<0.001				<0.001		<0.001	<0.001	<0.001
4/14/2015		<0.001	<0.001	<0.001					
4/15/2015						<0.001			
10/28/2015	<0.001				<0.001		<0.001	<0.001	<0.001
10/29/2015				<0.001		<0.001			
11/3/2015		<0.001	<0.001						
11/4/2015									
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
6/24/2016						<0.001			
8/30/2016	<0.001			<0.001					
8/31/2016		<0.001			<0.001		<0.001		<0.001
9/1/2016						<0.001		<0.001	
9/2/2016			0.0056						
10/24/2016				0.0002 (J)					
10/25/2016	<0.001	<0.001			<0.001		<0.001	<0.001	
10/26/2016			0.0003 (J)			0.0002 (J)			<0.001
1/23/2017				<0.001					
1/24/2017	<0.001	<0.001			<0.001				
1/26/2017			<0.001				<0.001		<0.001
1/27/2017						<0.001		<0.001	
4/11/2017	<0.001	<0.001		<0.001	<0.001				
4/12/2017			<0.001			<0.001	<0.001	<0.001	<0.001
6/20/2017	<0.001	<0.001							
6/21/2017			<0.001	<0.001	<0.001	<0.001			<0.001
6/22/2017							<0.001	<0.001	
10/25/2017	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		
10/26/2017			<0.001					<0.001	<0.001
4/9/2018					<0.001				
4/10/2018	<0.001	<0.001	<0.001	<0.001					
4/11/2018						<0.001	<0.001	<0.001	<0.001
10/16/2018	<0.001	<0.001		<0.001	<0.001				
10/17/2018			0.0016			<0.001	<0.001	<0.001	<0.001
3/26/2019					<0.001				
3/27/2019	<0.001	<0.001	<0.001	<0.001		<0.001			
3/28/2019							<0.001	<0.001	<0.001
8/19/2019					<0.001				

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10	ARGWC-8
8/20/2019	0.00014 (J)	0.00014 (J)		<0.001					
8/21/2019			<0.001			<0.001	<0.001	<0.001	<0.001
10/7/2019									
10/8/2019	0.00016 (J)	0.001	<0.001	<0.001	0.00013 (J)				
10/9/2019						<0.001	0.00016 (J)	<0.001	0.00019 (J)
4/6/2020									
4/7/2020	<0.001	<0.001		<0.001	<0.001				
4/8/2020			<0.001					0.031	
4/9/2020						<0.001	<0.001		<0.001
8/18/2020	0.00013 (J)	0.00019 (J)		<0.001	<0.001				
8/19/2020			<0.001				<0.001	0.00013 (J)	
8/20/2020						0.00028 (J)			<0.001
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001				
9/30/2020						0.0002 (J)			
10/1/2020							<0.001	<0.001	<0.001

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-14 (bg)
12/16/1997	
6/30/1998	
12/2/1998	
6/8/1999	
12/7/1999	
6/15/2000	
12/12/2000	
12/5/2001	
6/26/2002	
12/3/2002	
6/11/2003	
12/10/2003	
6/15/2004	
12/14/2004	
6/2/2005	
12/14/2005	
4/5/2006	
10/30/2006	
5/10/2007	
11/17/2007	
5/3/2008	
10/22/2008	
5/5/2009	
5/6/2009	
5/7/2009	
5/12/2009	
5/13/2009	
5/14/2009	
12/1/2009	
12/3/2009	
12/4/2009	
5/25/2010	
5/26/2010	
6/1/2010	
6/2/2010	<0.001
11/9/2010	
11/10/2010	<0.001
5/18/2011	
5/19/2011	<0.001
5/24/2011	
5/25/2011	
11/9/2011	<0.001
11/10/2011	
11/11/2011	
11/12/2011	
5/17/2012	
5/18/2012	
5/30/2012	<0.001
5/31/2012	
11/9/2012	
11/10/2012	
11/11/2012	<0.001

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-14 (bg)
5/7/2013	
5/8/2013	
5/9/2013	<0.001
5/13/2013	
11/5/2013	
11/6/2013	
11/11/2013	<0.001
11/12/2013	
5/20/2014	
5/21/2014	
5/28/2014	
5/29/2014	<0.001
11/17/2014	
11/18/2014	
11/19/2014	<0.001
11/20/2014	
4/7/2015	
4/14/2015	<0.001
4/15/2015	
10/28/2015	
10/29/2015	
11/3/2015	
11/4/2015	<0.001
6/23/2016	<0.001
6/24/2016	
8/30/2016	
8/31/2016	<0.001
9/1/2016	
9/2/2016	
10/24/2016	
10/25/2016	<0.001
10/26/2016	
1/23/2017	0.0013
1/24/2017	
1/26/2017	
1/27/2017	
4/11/2017	<0.001
4/12/2017	
6/20/2017	<0.001
6/21/2017	
6/22/2017	
10/25/2017	<0.001
10/26/2017	
4/9/2018	<0.001
4/10/2018	
4/11/2018	
10/16/2018	<0.001
10/17/2018	
3/26/2019	
3/27/2019	<0.001
3/28/2019	
8/19/2019	

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-14 (bg)
8/20/2019	
8/21/2019	0.00019 (J)
10/7/2019	<0.001
10/8/2019	
10/9/2019	
4/6/2020	<0.001
4/7/2020	
4/8/2020	
4/9/2020	
8/18/2020	
8/19/2020	<0.001
8/20/2020	
9/29/2020	<0.001
9/30/2020	
10/1/2020	

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWC-16	ARGWC-9	ARGWA-14 (bg)	ARGWA-13 (bg)
12/16/1997	<0.005	<0.005							
6/30/1998	<0.005	<0.005							
12/2/1998	<0.005	<0.005							
6/8/1999	<0.005	<0.005							
12/7/1999	<0.005	<0.005							
6/15/2000	<0.005	<0.005							
12/12/2000	<0.005	<0.005							
12/5/2001	<0.005	<0.005							
6/26/2002	<0.005	<0.005							
12/3/2002	<0.005	<0.005							
6/11/2003	<0.005	<0.005							
12/10/2003	<0.005	<0.005							
6/15/2004	<0.005	<0.005							
12/14/2004	<0.005	<0.005							
6/2/2005	<0.005	<0.005							
12/14/2005	<0.005	<0.005	<0.005						
4/5/2006	<0.005	<0.005	<0.005						
10/30/2006	<0.005	<0.005	<0.005						
5/10/2007	<0.005	<0.005	<0.005						
11/17/2007	<0.005	<0.005	<0.005						
5/2/2008			<0.005						
5/3/2008	<0.005	<0.005							
10/22/2008	<0.005	<0.005	<0.005						
5/5/2009				0.0041					
5/6/2009		0.0047			0.0054				
5/7/2009	0.0049								0.0059
5/12/2009						0.0062			
5/13/2009							0.0049		
5/14/2009			0.0046						
12/1/2009		0.0046	0.0019						
12/3/2009					0.006		0.0045		0.0057
12/4/2009	<0.005			<0.005					
12/5/2009						<0.005			
5/25/2010		<0.005			<0.005				<0.013
5/26/2010			<0.005			<0.005	<0.005		
6/1/2010	<0.005			<0.005					
6/2/2010								<0.005	
11/9/2010		<0.005			<0.005	<0.005	<0.005		
11/10/2010	<0.005		<0.005	<0.005				<0.005	<0.013
5/19/2011							<0.005	<0.005	
5/24/2011		<0.005			<0.005	<0.005			
5/25/2011	<0.005		<0.005	<0.005					<0.013
11/9/2011				<0.005				<0.005	
11/10/2011		<0.005			<0.005				<0.013
11/11/2011			<0.005				<0.005		
11/12/2011	<0.005					<0.005			
5/17/2012			<0.005				<0.005		
5/18/2012		<0.005			<0.005				
5/30/2012						0.0016 (J)		<0.005	<0.0005
5/31/2012	<0.005			<0.005					
11/9/2012		<0.005	<0.005		<0.005	<0.005	<0.005		<0.005
11/10/2012				<0.005					

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWC-16	ARGWC-9	ARGWA-14 (bg)	ARGWA-13 (bg)
11/11/2012	<0.005							<0.005	
5/7/2013							<0.005		
5/8/2013		<0.005	<0.005		<0.005				
5/9/2013								<0.005	<0.005
5/13/2013	<0.005			<0.005		<0.005			
11/5/2013			<0.005						
11/6/2013		<0.005			<0.005	<0.005	<0.005		
11/11/2013								<0.005	<0.005
11/12/2013	<0.005			<0.005					
5/20/2014		<0.005			<0.005				
5/21/2014			<0.005			<0.005	<0.005		<0.005
5/28/2014				<0.005					
5/29/2014	<0.005							<0.005	
11/17/2014		<0.005	<0.005			<0.005			
11/18/2014					<0.005		<0.005		0.0083
11/19/2014								<0.005	
11/20/2014				<0.005					
4/7/2015		<0.005	<0.005			<0.005	<0.005		<0.005
4/14/2015	<0.005			<0.005	<0.005			<0.005	
10/28/2015		<0.005	<0.005			<0.005	<0.005		0.023
10/29/2015					<0.005				
11/3/2015	<0.005			<0.005					
11/4/2015								<0.005	
6/23/2016	<0.005	<0.005	0.00029 (J)	<0.005	<0.005		<0.005	<0.005	0.0096
6/24/2016						0.0014			
8/30/2016		<0.005			<0.005				
8/31/2016	<0.005		<0.005				0.00024 (J)	0.00077 (J)	0.017
9/1/2016						0.0014			
9/2/2016				0.0005 (J)					
10/24/2016					<0.005				
10/25/2016	<0.005	<0.005	<0.005			0.0015 (J)	<0.005	<0.005	0.0257
10/26/2016				<0.005					
1/23/2017					<0.005			0.00037 (J)	
1/24/2017	<0.005	<0.005							0.0097
1/26/2017			<0.005	<0.005		0.00071 (J)	<0.005		
4/11/2017	<0.005	<0.005			<0.005	0.0011 (J)		<0.005	0.0079
4/12/2017			<0.005	<0.005			<0.005		
6/20/2017	<0.005	<0.005						0.00044 (J)	
6/21/2017				<0.005	0.00025 (J)	0.00075 (J)			0.019
6/22/2017			<0.005				<0.005		
10/25/2017	0.00032 (J)	0.00027 (J)	<0.005		0.00027 (J)		0.00029 (J)	0.00038 (J)	0.022
10/26/2017				0.0004 (J)		0.0012 (J)			
4/9/2018								<0.005	0.0063
4/10/2018	<0.005	<0.005	<0.005	0.00044 (J)	0.00033 (J)	0.0013			
4/11/2018							<0.005		
10/16/2018	<0.005	<0.005			<0.005	0.00072 (J)		<0.005	0.021
10/17/2018			<0.005	<0.005			<0.005		
3/26/2019									0.015
3/27/2019	<0.005	<0.005		<0.005	<0.005			<0.005	
3/28/2019			<0.005			0.0017	<0.005		
8/19/2019									0.034
8/20/2019	<0.005	<0.005			<0.005	<0.005			

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWC-16	ARGWC-9	ARGWA-14 (bg)	ARGWA-13 (bg)
8/21/2019			<0.005	<0.005			<0.005	<0.005	
10/7/2019								<0.005	
10/8/2019	<0.005	<0.005		<0.005	<0.005				0.03
10/9/2019			<0.005			0.0018 (J)	<0.005		
4/6/2020								<0.005	
4/7/2020	<0.005	<0.005			<0.005				0.0094
4/8/2020			<0.005	<0.005		0.0022 (J)			
4/9/2020							<0.005		
8/18/2020	<0.005	<0.005	<0.005		<0.005				0.019
8/19/2020				<0.005		0.0029 (J)	<0.005	<0.005	
9/29/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.0025 (J)		<0.005	0.021
10/1/2020							<0.005		

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWA-14 (bg)
12/16/1997	<0.001	0.035 (o)					
6/30/1998	<0.001	<0.001					
12/2/1998	<0.001	<0.001					
6/8/1999	<0.001	<0.001					
12/7/1999	<0.001	<0.001					
6/15/2000	<0.001	<0.001					
12/12/2000	<0.001	0.0051					
12/5/2001	<0.001	<0.001					
6/26/2002	<0.001	<0.001					
12/3/2002	<0.001	<0.001					
6/11/2003	<0.001	<0.001					
12/10/2003	0.002 (o)	0.003					
6/15/2004	<0.001	<0.001					
12/14/2004	<0.001	<0.001					
6/2/2005	<0.001	<0.001					
12/14/2005	<0.001	<0.001					
4/5/2006	<0.001	<0.001					
10/30/2006	<0.001	0.002					
5/10/2007	<0.001	0.0017					
11/17/2007	<0.001	<0.001					
5/3/2008	<0.001	<0.001					
10/22/2008	<0.001	<0.001					
5/5/2009			<0.001				
5/6/2009	<0.001			<0.001			
5/7/2009		<0.001			<0.001		
5/12/2009						0.0011	
12/1/2009	<0.001						
12/3/2009				<0.001	<0.001		
12/4/2009		<0.001	0.00098				
12/5/2009						0.0004	
5/25/2010	<0.001			<0.001	<0.001		
5/26/2010						<0.001	
6/1/2010		<0.001	<0.001				
6/2/2010							<0.001
11/9/2010	<0.001			<0.001		<0.001	
11/10/2010		<0.001	<0.001		<0.001		<0.001
5/19/2011							<0.001
5/24/2011	<0.001			<0.001		<0.001	
5/25/2011		<0.001	<0.001		<0.001		
5/18/2012	<0.001			0.0001 (J)			
5/30/2012					<0.001	<0.001	<0.001
5/31/2012		<0.001	<0.001				
11/9/2012	<0.001			<0.001	<0.001	<0.001	
11/10/2012			<0.001				
11/11/2012		<0.001					<0.001
5/8/2013	<0.001			<0.001			
5/9/2013					<0.001		<0.001
5/13/2013		<0.001	<0.001			<0.001	
11/6/2013	<0.001			<0.001		<0.001	
11/11/2013					<0.001		<0.001
11/12/2013		<0.001	<0.001				
5/20/2014	<0.001			<0.001			

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 12/4/2020 11:23 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWA-14 (bg)
5/21/2014					<0.001	<0.001	
5/28/2014			<0.001				
5/29/2014		<0.001					<0.001
11/17/2014	<0.001					<0.001	
11/18/2014				<0.001	<0.001		
11/19/2014							<0.001
11/20/2014			<0.001				
4/7/2015	<0.001				<0.001	<0.001	
4/14/2015		<0.001	<0.001	<0.001			<0.001
10/28/2015	<0.001				<0.001	<0.001	
10/29/2015				<0.001			
11/3/2015		<0.001	<0.001				
11/4/2015							<0.001
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
6/24/2016						<0.001	
10/24/2016				<0.001			
10/25/2016	<0.001	<0.001			<0.001	<0.001	<0.001
10/26/2016			<0.001				
4/11/2017	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
4/12/2017			<0.001				
10/25/2017	<0.001	<0.001		<0.001	0.00013 (J)		<0.001
10/26/2017			0.00037 (J)			0.00026 (J)	
4/9/2018					<0.001		<0.001
4/10/2018	<0.001	<0.001	<0.001	<0.001		<0.001	
10/16/2018	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
10/17/2018			<0.001				
3/26/2019					<0.001		
3/27/2019	<0.001	<0.001	<0.001	<0.001			<0.001
3/28/2019						<0.001	
10/7/2019							0.00022 (J)
10/8/2019	0.0003 (J)	0.00019 (J)	0.00018 (J)	<0.001	0.00047 (J)		
10/9/2019						<0.001	
4/6/2020							<0.001
4/7/2020	<0.001	<0.001		<0.001	<0.001		
4/8/2020			<0.001			<0.001	
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

FIGURE E.

Appendix III - Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:23 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**9/30/2020**	**2.6**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**10/1/2020**	**1.2**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-15**	**6.94**	**5.58**	**9/29/2020**	**7.11**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-16**	**6.94**	**5.58**	**9/29/2020**	**5.5**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**

Appendix III - Interwell Prediction Limits - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/3/2020, 2:22 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-10	0.68	n/a	10/1/2020	0.082	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-15	0.68	n/a	9/29/2020	0.08ND	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-16	0.68	n/a	9/29/2020	0.081	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-17	0.68	n/a	9/29/2020	0.045J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**9/30/2020**	**2.6**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	ARGWC-7	0.68	n/a	9/29/2020	0.078J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**10/1/2020**	**1.2**	**Yes**	**65**	**n/a**	**n/a**	**49.23**	**n/a**	**n/a**	**0.0004525**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	ARGWC-9	0.68	n/a	10/1/2020	0.041J	No	65	n/a	n/a	49.23	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-10	190	n/a	10/1/2020	8.1	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-15	190	n/a	9/29/2020	25	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-16	190	n/a	9/29/2020	39	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-17	190	n/a	9/29/2020	12	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-18	190	n/a	9/30/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-7	190	n/a	9/29/2020	11	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-8	190	n/a	10/1/2020	52	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-9	190	n/a	10/1/2020	5.7	No	65	n/a	n/a	0	n/a	n/a	0.0004525	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-10	15.1	n/a	10/1/2020	3.9	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-15	15.1	n/a	9/29/2020	2.5	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-16	15.1	n/a	9/29/2020	5.2	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-17	15.1	n/a	9/29/2020	3.4	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-18	15.1	n/a	9/30/2020	6.9	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-7	15.1	n/a	9/29/2020	4.1	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-8	15.1	n/a	10/1/2020	6	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-9	15.1	n/a	10/1/2020	5.5	No	173	n/a	n/a	0.578	n/a	n/a	0.00006614	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-10	0.53	n/a	10/1/2020	0.048J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-15	0.53	n/a	9/29/2020	0.089J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-16	0.53	n/a	9/29/2020	0.026J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-17	0.53	n/a	9/29/2020	0.029J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-18	0.53	n/a	9/30/2020	0.082J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-7	0.53	n/a	9/29/2020	0.027J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-8	0.53	n/a	10/1/2020	0.14	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-9	0.53	n/a	10/1/2020	0.041J	No	75	n/a	n/a	41.33	n/a	n/a	0.0003419	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-10	6.94	5.58	10/1/2020	5.83	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	**ARGWC-15**	**6.94**	**5.58**	**9/29/2020**	**7.11**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-16**	**6.94**	**5.58**	**9/29/2020**	**5.5**	**Yes**	**72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007365**	**NP Inter (normality) 1 of 2**
pH (SU)	ARGWC-17	6.94	5.58	9/29/2020	5.75	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-18	6.94	5.58	9/30/2020	5.98	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-7	6.94	5.58	9/29/2020	5.92	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-8	6.94	5.58	10/1/2020	6.44	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-9	6.94	5.58	10/1/2020	5.78	No	72	n/a	n/a	0	n/a	n/a	0.0007365	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-10	950	n/a	10/1/2020	0.5ND	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-15	950	n/a	9/29/2020	7.7	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-16	950	n/a	9/29/2020	200	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-17	950	n/a	9/29/2020	66	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-18	950	n/a	9/30/2020	170	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-7	950	n/a	9/29/2020	38	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-8	950	n/a	10/1/2020	57	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-9	950	n/a	10/1/2020	0.82J	No	181	n/a	n/a	17.68	n/a	n/a	0.00006	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-10	1500	n/a	10/1/2020	93	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-15	1500	n/a	9/29/2020	130	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-16	1500	n/a	9/29/2020	340	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-17	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-18	1500	n/a	9/30/2020	390	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-7	1500	n/a	9/29/2020	140	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-8	1500	n/a	10/1/2020	270	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-9	1500	n/a	10/1/2020	55	No	60	n/a	n/a	0	n/a	n/a	0.0005192	NP Inter (normality) 1 of 2

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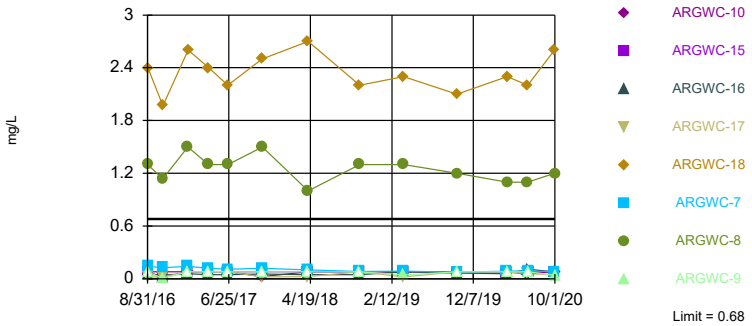
Hollow symbols indicate censored values.

Exceeds Limit: ARGWC-18, ARGWC-8

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 65 background values. 49.23% NDs. Annual per-constituent alpha = 0.007216. Individual comparison alpha = 0.0004525 (1 of 2). Comparing 8 points to limit.

Constituent: Boron Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

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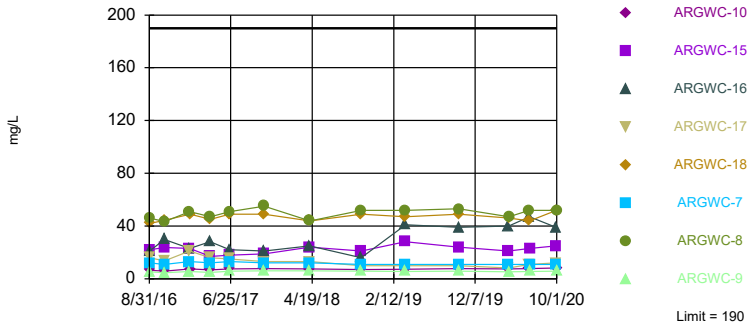
Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 65 background values. Annual per-constituent alpha = 0.007216. Individual comparison alpha = 0.0004525 (1 of 2). Comparing 8 points to limit.

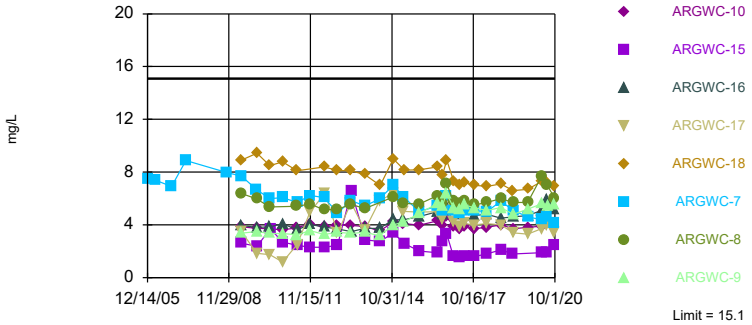
Constituent: Calcium Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 173 background values. 0.578% NDs. Annual per-constituent alpha = 0.001058. Individual comparison alpha = 0.00006614 (1 of 2). Comparing 8 points to limit.

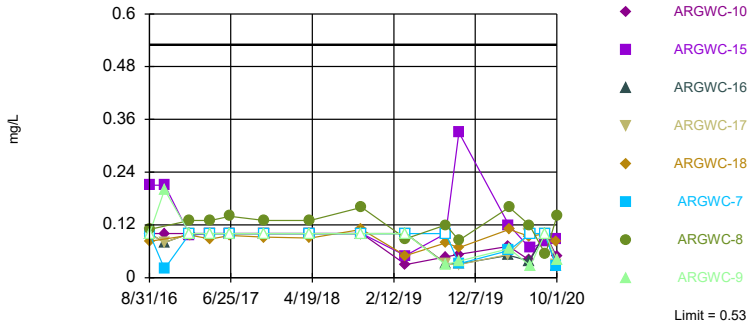
Constituent: Chloride Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 75 background values. 41.33% NDs. Annual per-constituent alpha = 0.005456. Individual comparison alpha = 0.0003419 (1 of 2). Comparing 8 points to limit.

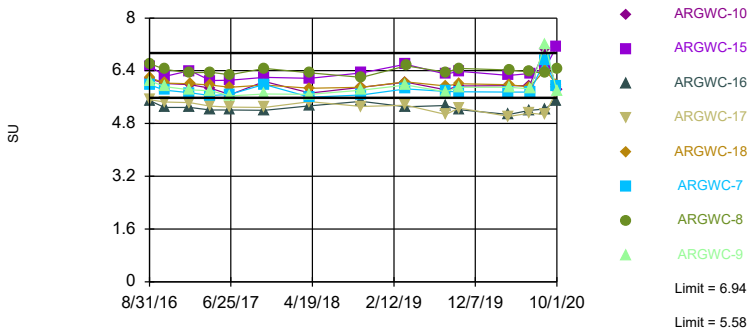
Constituent: Fluoride Analysis Run 12/3/2020 2:21 PM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Exceeds Limits: ARGWC-15, ARGWC-16

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. Limits are highest and lowest of 72 background values. Annual per-constituent alpha = 0.01175. Individual comparison alpha = 0.0007365 (1 of 2). Comparing 8 points to limit.

Constituent: pH Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

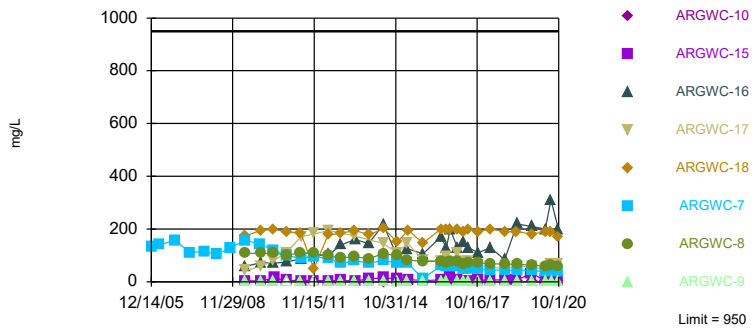
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 181 background values. 17.68% NDs. Annual per-constituent alpha = 0.0009596. Individual comparison alpha = 0.00006 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

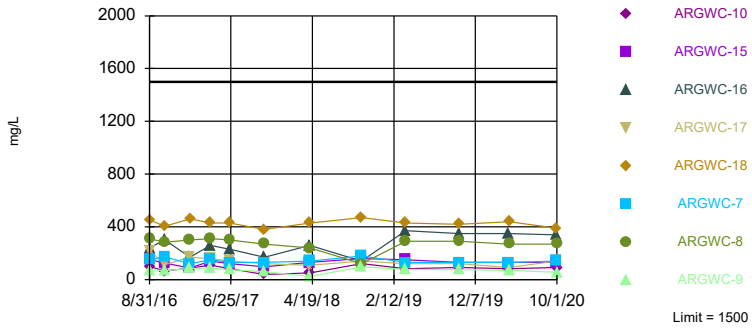
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. Annual per-constituent alpha = 0.008276. Individual comparison alpha = 0.0005192 (1 of 2). Comparing 8 points to limit.

Constituent: Total Dissolved Solids Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWA-14 (bg)	ARGWC-8	ARGWC-7	ARGWA-3 (bg)	ARGWC-9	ARGWA-13 (bg)	ARGWC-16
8/30/2016	0.032 (J)	<0.08							
8/31/2016			0.04 (J)	1.3	0.14	<0.08	<0.08	0.1	
9/1/2016									0.049 (J)
9/2/2016									
10/24/2016	0.0406 (J)								
10/25/2016		0.0073 (J)	0.065 (J)		0.126	0.0068 (J)	0.0071 (J)	0.204	0.042 (J)
10/26/2016				1.14					
1/23/2017	0.023 (J)		0.031 (J)						
1/24/2017		<0.08				<0.08		0.064	
1/26/2017				1.5	0.14		<0.08		0.059
1/27/2017									
4/11/2017	0.025 (J)	<0.08	0.043 (J)			<0.08		0.081	0.045 (J)
4/12/2017				1.3	0.12		<0.08		
6/20/2017		<0.08	0.029 (J)			<0.08			
6/21/2017	<0.08			1.3				0.13	0.045 (J)
6/22/2017					0.11		<0.08		
10/25/2017	0.028 (J)	<0.08	0.041 (J)		0.12	<0.08	<0.08	0.17	
10/26/2017				1.5					0.054
4/9/2018			0.04 (J)					0.059	
4/10/2018	0.027 (J)	<0.08			0.1	<0.08			0.048 (J)
4/11/2018				1			<0.08		
10/16/2018	0.023 (J)	<0.08	0.046 (J)			<0.08		0.34	0.048 (J)
10/17/2018				1.3	0.084		<0.08		
3/26/2019								0.32	
3/27/2019	<0.08	<0.08	0.032 (J)			<0.08			
3/28/2019				1.3	0.087		0.044 (J)		0.08
10/7/2019			<0.08						
10/8/2019	<0.08	<0.08				<0.08		0.68	
10/9/2019				1.2	0.076 (J)		<0.08		0.065 (J)
4/6/2020			0.041 (J)						
4/7/2020	<0.08	<0.08				<0.08		0.23	
4/8/2020					0.086				0.059 (J)
4/9/2020				1.1			<0.08		
6/23/2020				1.1					
6/24/2020									0.11
6/25/2020		<0.08	<0.08		0.091	<0.08		0.32	
6/26/2020	<0.08						<0.08		
9/29/2020	<0.08	<0.08	0.039 (J)		0.078 (J)	<0.08		0.35	0.081
9/30/2020									
10/1/2020				1.2			0.041 (J)		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-17	ARGWC-18	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	<0.08	0.022 (J)	2.4	
9/2/2016				<0.08
10/24/2016				
10/25/2016	<0.08	0.0219 (J)		
10/26/2016			1.97	0.0138 (J)
1/23/2017				
1/24/2017				
1/26/2017		<0.08		<0.08
1/27/2017	<0.08		2.6	
4/11/2017		<0.08		
4/12/2017	<0.08		2.4	<0.08
6/20/2017				
6/21/2017		<0.08	2.2	<0.08
6/22/2017	<0.08			
10/25/2017			2.5	
10/26/2017	0.026 (J)	0.023 (J)		<0.08
4/9/2018				
4/10/2018		0.026 (J)		<0.08
4/11/2018	<0.08		2.7	
10/16/2018				
10/17/2018	<0.08	<0.08	2.2	<0.08
3/26/2019				
3/27/2019			2.3	<0.08
3/28/2019	<0.08	0.022 (J)		
10/7/2019				
10/8/2019				<0.08
10/9/2019	<0.08	<0.08	2.1	
4/6/2020				
4/7/2020				
4/8/2020	<0.08	<0.08		<0.08
4/9/2020			2.3	
6/23/2020	0.053 (J)			
6/24/2020		0.059 (J)	2.2	
6/25/2020				<0.08
6/26/2020				
9/29/2020		0.045 (J)		<0.08
9/30/2020			2.6	
10/1/2020	0.082			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWA-14 (bg)	ARGWC-8	ARGWC-7	ARGWA-3 (bg)	ARGWC-9	ARGWA-13 (bg)	ARGWC-16
8/30/2016	11	5.1							
8/31/2016			31	46	12	5.4	5.2	110	
9/1/2016									21
9/2/2016									
10/24/2016	10.4								
10/25/2016		4.76	38.5		10.9	4.47	4.64	150	29.8
10/26/2016				43.3					
1/23/2017	12		25						
1/24/2017		5.6				5.8		78	
1/26/2017				51	13		5.5		23
1/27/2017									
4/11/2017	12	4.7	33			5.3		78	28
4/12/2017				47	12		4.9		
6/20/2017		5.4	34			5.8			
6/21/2017	12			51				110	22
6/22/2017					13		5.8		
10/25/2017	13	6	28		12	5.9	6.1	120	
10/26/2017				55					21
4/9/2018			30					49	
4/10/2018	13	5.3			12	5.9			25
4/11/2018				44			6		
10/16/2018	12	5.6	41			5.8		110	16
10/17/2018				52	11		5.8		
3/26/2019								95	
3/27/2019	11	4.5	42			5.4			
3/28/2019				52	11		5.6		41
10/7/2019			36						
10/8/2019	13	5.9				6		190	
10/9/2019				53	11		5.7		39
4/6/2020			43						
4/7/2020	12	4				5.5		61	
4/8/2020					11				40
4/9/2020				47			5.3		
6/23/2020				52					
6/24/2020									47
6/25/2020		6.1	27		11	5.7		100	
6/26/2020	15						5.6		
9/29/2020	14	6.6	29		11	5.9		120	39
9/30/2020									
10/1/2020				52			5.7		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-17	ARGWC-18	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	6.6	16	42	
9/2/2016				22
10/24/2016				
10/25/2016	5.89	13.5		
10/26/2016			44.3	23.7
1/23/2017				
1/24/2017				
1/26/2017		21		23
1/27/2017	7.4		49	
4/11/2017		16		
4/12/2017	6.7		45	17
6/20/2017				
6/21/2017		15	49	18
6/22/2017	7.5			
10/25/2017			49	
10/26/2017	7.8	13		19
4/9/2018				
4/10/2018		13		24
4/11/2018	7.4		44	
10/16/2018				
10/17/2018	7.1	10	49	21
3/26/2019				
3/27/2019			47	28
3/28/2019	7.3	10		
10/7/2019				
10/8/2019				24
10/9/2019	7.7	10	49	
4/6/2020				
4/7/2020				
4/8/2020	7.5	8.3		21
4/9/2020			46	
6/23/2020	7.7			
6/24/2020		11	44	
6/25/2020				23
6/26/2020				
9/29/2020		12		25
9/30/2020			52	
10/1/2020	8.1			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWC-17	ARGWC-18
12/16/1997	6.2	3.8							
6/30/1998	4.6	2.9							
12/2/1998	3.13	1.76							
6/8/1999	1.56	1.97							
12/7/1999	3.05	1.98							
6/15/2000	3.35	2.08							
12/12/2000	2.42	2.02							
12/5/2001	2.62	2.03							
6/26/2002	3.4	2.52							
12/3/2002	3.04	2.12							
6/11/2003	3.02	2.43							
12/10/2003	2.9	1.93							
6/15/2004	2.05	2.42							
12/14/2004	2.78	2.44							
6/2/2005	3.15	2.79							
12/14/2005	3.38	2.77	7.52						
4/5/2006	3.49	2.8	7.38						
10/30/2006	2.84	3.09	6.9						
5/10/2007	3.68	3.93	8.88						
11/17/2007	2.69	<0.021	13.5 (o)						
5/2/2008			12.9 (o)						
5/3/2008	2.85	3.52							
10/22/2008	2.99	3.15	7.97						
5/5/2009				2.61					
5/6/2009		3.49			10.7				
5/7/2009	2.96					4.24			
5/12/2009							3.96	3.5	8.89
5/13/2009									
5/14/2009			7.68						
12/1/2009		3.26	6.66						
12/3/2009					10.1	2.66			
12/4/2009	2.97			2.37				1.85	9.43
12/5/2009							3.81		
5/25/2010		3.62			7.11	3.29		1.74	8.49
5/26/2010			6				3.85		
6/1/2010	3.23			3.71					
6/2/2010									
11/9/2010		3.38			8.4		4.08	1.18	
11/10/2010	2.86		6.07	2.69		3.82			8.77
5/18/2011									
5/19/2011									8.11
5/24/2011		3.62			9.07		3.63	2.51	
5/25/2011	2.86		5.7	2.44		4.92			
11/9/2011				2.3					
11/10/2011		3.74			10.3	4.48			
11/11/2011			6.23						
11/12/2011	2.83						4.03	4.99	12.3 (o)
5/17/2012			6.06						8.4
5/18/2012		3.6			10.1				
5/30/2012						4.72	3.82	6.4	
5/31/2012	2.68			2.29					
11/9/2012		3.66	4.9		8.73	5.1	3.69	3.37	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWC-17	ARGWC-18
11/10/2012				2.46					8.13
11/11/2012	2.63								
5/7/2013									8.11
5/8/2013		4.16	5.85		8.06			5.67	
5/9/2013						3.85			
5/13/2013	0.364			6.55			3.5		
11/5/2013			5.44						7.82
11/6/2013		3.87			10.2		3.74	3.62	
11/11/2013						5.26			
11/12/2013	2.95			2.86					
5/20/2014		4.4			8.2			5.82	
5/21/2014			5.96			4.47	3.74		
5/28/2014				2.75					6.99
5/29/2014	2.64								
11/17/2014		4.2	7				4.4	6.4	
11/18/2014					10	6.4			
11/19/2014									9
11/20/2014				3.4					
4/7/2015		4.53	6.08			5.04	4.38	5.02	
4/14/2015	2.78			2.56	10.7				
4/15/2015									8.14
10/28/2015		4.47	5.02			6.3	4.62	4.98	
10/29/2015					10.7				8.17
11/3/2015	2.66			2.01					
11/4/2015									
6/23/2016	3.3	4.6	5.4	1.9	11	5.7			
6/24/2016							5	5	8.4
8/30/2016		4.3			11				
8/31/2016	2.7		5.1			5.7			
9/1/2016							4.8	4.4	7.8
9/2/2016				2.7					
10/24/2016					12				
10/25/2016	3.1	5	6.2			7.9	5.4	5.1	
10/26/2016				3.3					8.9
1/23/2017					11				
1/24/2017	2.5	5.1				4.4			
1/26/2017			5.1	1.6			5.2	4.2	
1/27/2017									7.3
4/11/2017	2.4	4.4			11	4.3	4.8	3.9	
4/12/2017			4.9	1.5					7
6/20/2017	2.5	5							
6/21/2017				1.6	11	5.5	5.2	4.1	7.2
6/22/2017			5.1						
10/25/2017	2.3	5.3	5.1		10	5.2			7
10/26/2017				1.6			4.7	4	
4/9/2018						3.8			
4/10/2018	2.4	5.1	5	1.8	9.9		4.8	4.1	
4/11/2018									6.9
10/16/2018	2.5	5.3			11	6	4.5		
10/17/2018			5.8	2.1				4	7.1
3/26/2019						4.6			
3/27/2019	2.5	4.3		1.8	11				6.6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-16	ARGWC-17	ARGWC-18
3/28/2019			5.1				4.6	3.4	
10/7/2019									
10/8/2019	2.6	5.7		9.4 (o)	64 (o)	6.7			
10/9/2019			4.6				4.7	3.3	6.7
4/6/2020									
4/7/2020	2.9	3.7			11	3.8			
4/8/2020			4.4	1.9			5.1	3.7	
4/9/2020									7.3
6/23/2020									
6/24/2020							5.9	4	7.2
6/25/2020	2.8	4.2	4.6	1.9		5.8			
6/26/2020					12				
9/29/2020	2.7	4.6	4.1	2.5	12	5.7	5.2	3.4	
9/30/2020									6.9
10/1/2020									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-9	ARGWC-8	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009				
5/13/2009	3.85	3.37		
5/14/2009			6.38	
12/1/2009				
12/3/2009	3.73	3.49	5.96	
12/4/2009				
12/5/2009				
5/25/2010				
5/26/2010	3.7	3.35	5.37	
6/1/2010				
6/2/2010				15.1
11/9/2010	3.6	3.34	<0.071 (o)	
11/10/2010				14.8
5/18/2011			5.4	
5/19/2011	3.79	3.25		28.2 (o)
5/24/2011				
5/25/2011				
11/9/2011				32.8 (o)
11/10/2011				
11/11/2011	4.07	3.57	5.58	
11/12/2011				
5/17/2012	3.84	3.27	5.15	
5/18/2012				
5/30/2012				30.8 (o)
5/31/2012				
11/9/2012	3.99	3.45	5.2	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-9	ARGWC-8	ARGWA-14 (bg)
11/10/2012				
11/11/2012				24.6 (o)
5/7/2013	3.94	3.35	5.56	
5/8/2013				
5/9/2013				27.2 (o)
5/13/2013				
11/5/2013			5.24	
11/6/2013	3.89	3.45		
11/11/2013				12.7
11/12/2013				
5/20/2014	3.54			
5/21/2014		3.18	7.34 (o)	
5/28/2014				
5/29/2014				20 (o)
11/17/2014				
11/18/2014	4.2	4	6.1	
11/19/2014				19 (o)
11/20/2014				
4/7/2015	4.09	4.22	5.62	
4/14/2015				13.6
4/15/2015				
10/28/2015	3.98	4.87	5.58	
10/29/2015				
11/3/2015				
11/4/2015				12.4
6/23/2016	4.3	5.6	6.2	9
6/24/2016				
8/30/2016				
8/31/2016		5.4	5.6	5.4
9/1/2016	4			
9/2/2016				
10/24/2016				
10/25/2016	4.6	6.4		9.3
10/26/2016			7.1	
1/23/2017				5.1
1/24/2017				
1/26/2017		5.3	5.8	
1/27/2017	3.9			
4/11/2017				4.1
4/12/2017	3.7	5.2	5.6	
6/20/2017				4.1
6/21/2017			5.8	
6/22/2017	3.9	5.5		
10/25/2017		5.3		3.8
10/26/2017	3.7		5.5	
4/9/2018				3.9
4/10/2018				
4/11/2018	3.8	5.1	5.7	
10/16/2018				4.3
10/17/2018	4	5.3	6	
3/26/2019				
3/27/2019				4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-10	ARGWC-9	ARGWC-8	ARGWA-14 (bg)
3/28/2019	3.7	4.8	5.7	
10/7/2019				4
10/8/2019				
10/9/2019	3.8	5.2	5.7	
4/6/2020				4.2
4/7/2020				
4/8/2020	3.9			
4/9/2020		5.6	7.7	
6/23/2020	4.2		7	
6/24/2020				
6/25/2020				4
6/26/2020		5.4		
9/29/2020				4.1
9/30/2020				
10/1/2020	3.9	5.5	6	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWA-14 (bg)	ARGWC-8	ARGWA-13 (bg)	ARGWC-9	ARGWA-3 (bg)	ARGWC-18
8/30/2016	<0.1	<0.1							
8/31/2016			<0.1	0.12 (J)	0.11 (J)	<0.1	<0.1	<0.1	
9/1/2016									0.083 (J)
9/2/2016									
10/24/2016	0.1 (J)								
10/25/2016		0.09 (J)	0.02 (J)	0.53		0.08 (J)	0.2 (J)	0.14 (J)	
10/26/2016					0.43 (o)				0.32 (o)
1/23/2017	<0.1			0.4					
1/24/2017		<0.1				<0.1		<0.1	
1/26/2017			<0.1		0.13 (J)		<0.1		
1/27/2017									0.097 (J)
4/11/2017	<0.1	<0.1		0.31		<0.1		<0.1	
4/12/2017			<0.1		0.13 (J)		<0.1		0.088 (J)
6/20/2017		<0.1		0.27				<0.1	
6/21/2017	<0.1				0.14 (J)	<0.1			0.096 (J)
6/22/2017			<0.1				<0.1		
10/25/2017	<0.1	<0.1	<0.1	0.29		<0.1	<0.1	<0.1	0.092 (J)
10/26/2017					0.13 (J)				
4/9/2018				0.25		<0.1			
4/10/2018	<0.1	<0.1	<0.1					<0.1	
4/11/2018					0.13 (J)		<0.1		0.09 (J)
10/16/2018	0.1 (J)	<0.1		0.33		<0.1		0.1 (J)	
10/17/2018			<0.1		0.16 (J)		<0.1		0.11 (J)
3/26/2019						<0.1			
3/27/2019	0.031 (J)	0.026 (J)		0.15 (J)				0.034 (J)	0.05 (J)
3/28/2019			<0.1		0.089 (J)		<0.1		
8/19/2019						<0.1			
8/20/2019	0.049 (J)	0.047 (J)						0.053 (J)	
8/21/2019			<0.1	0.35	0.12 (J)		0.03 (J)		0.079 (J)
10/7/2019				0.12 (J)					
10/8/2019	0.27 (J)	0.05 (J)				0.033 (J)		0.056 (J)	
10/9/2019			0.032 (J)		0.085 (J)		0.038 (J)		0.068 (J)
4/6/2020				0.28					
4/7/2020	0.082 (J)	0.072 (J)				0.086 (J)		0.098 (J)	
4/8/2020			0.062 (J)						
4/9/2020					0.16		0.066 (J)		0.11
6/23/2020					0.12				
6/24/2020									0.094 (J)
6/25/2020		0.042 (J)	<0.1	0.17		0.03 (J)		0.06 (J)	
6/26/2020	0.051 (J)						0.027 (J)		
8/18/2020	0.041 (J)	<0.1	<0.1			<0.1		<0.1	
8/19/2020				0.12			<0.1		
8/20/2020					0.054 (J)				<0.1
9/29/2020	0.06 (J)	0.051 (J)	0.027 (J)	0.13		0.032 (J)		0.065 (J)	
9/30/2020									0.082 (J)
10/1/2020					0.14		0.041 (J)		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-17	ARGWC-10	ARGWC-16	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	<0.1	<0.1	<0.1	
9/2/2016				0.21
10/24/2016				
10/25/2016	0.08 (J)	0.1 (J)	0.08 (J)	
10/26/2016				0.21 (J)
1/23/2017				
1/24/2017				
1/26/2017	<0.1		<0.1	0.097 (J)
1/27/2017		<0.1		
4/11/2017	<0.1		<0.1	
4/12/2017		<0.1		<0.1
6/20/2017				
6/21/2017	<0.1		<0.1	<0.1
6/22/2017		<0.1		
10/25/2017				
10/26/2017	<0.1	<0.1	<0.1	<0.1
4/9/2018				
4/10/2018	<0.1		<0.1	<0.1
4/11/2018		<0.1		
10/16/2018			<0.1	
10/17/2018	<0.1	<0.1		0.1 (J)
3/26/2019				
3/27/2019				0.05 (J)
3/28/2019	<0.1	0.03 (J)	<0.1	
8/19/2019				
8/20/2019			0.033 (J)	
8/21/2019	0.031 (J)	0.047 (J)		0.1 (J)
10/7/2019				
10/8/2019				0.33 (J)
10/9/2019	0.03 (J)	0.053 (J)	0.031 (J)	
4/6/2020				
4/7/2020				
4/8/2020	0.053 (J)	0.071 (J)	0.051 (J)	0.12
4/9/2020				
6/23/2020		0.04 (J)		
6/24/2020	<0.1		0.038 (J)	
6/25/2020				0.067 (J)
6/26/2020				
8/18/2020	<0.1			
8/19/2020		<0.1	<0.1	0.081 (J)
8/20/2020				
9/29/2020	0.029 (J)		0.026 (J)	0.089 (J)
9/30/2020				
10/1/2020		0.048 (J)		

Prediction Limit

Constituent: pH (SU) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-5 (bg)	ARGWC-10	ARGWC-7	ARGWA-3 (bg)	ARGWC-8	ARGWC-9	ARGWC-16	ARGWC-17	ARGWC-18
8/30/2016	6.07								
8/31/2016		6.16	5.98	6.09	6.62	6.1			
9/1/2016							5.49	5.52	6.19
9/2/2016									
10/24/2016									
10/25/2016	5.96	6.02	5.81	5.92		5.92	5.29	5.45	
10/26/2016					6.44				6.03
1/23/2017									
1/24/2017	5.89			5.98					
1/26/2017			5.73		6.34	5.82	5.29	5.43	
1/27/2017		5.98							6.01
4/11/2017	5.78			5.82			5.21	5.33	
4/12/2017		5.87	5.65		6.36	5.79			5.97
6/20/2017	5.69			5.8					
6/21/2017					6.28		5.21	5.3	5.9
6/22/2017		5.68	5.69			5.64			
10/25/2017	6.11		5.99	5.89		5.7			5.97
10/26/2017		6.07			6.47		5.2	5.29	
4/9/2018									
4/10/2018	5.58		5.6	5.85			5.34	5.46	
4/11/2018		5.72			6.34	5.69			5.87
10/16/2018	5.86			6.03			5.47		
10/17/2018		5.9	5.67		6.2	5.81		5.32	5.9
3/26/2019									
3/27/2019	5.97			6.1					6.06
3/28/2019		6.05	5.85			5.97	5.31	5.36	
3/29/2019					6.55				
8/19/2019									
8/20/2019	5.8			5.83			5.35		
8/21/2019		5.82	5.77		6.36	5.76		5.07	5.94
10/7/2019									
10/8/2019	5.93			5.96					
10/9/2019		5.94	5.76		6.47	5.9	5.22	5.27	6.01
4/6/2020									
4/7/2020	5.86			5.9					
4/8/2020		5.95	5.75				5.07	5.02	
4/9/2020					6.42	5.9			5.98
6/23/2020		5.95			6.37				
6/24/2020							5.2	5.11	5.91
6/25/2020	5.87		5.75	5.75					
6/26/2020						5.85			
8/18/2020	6.18		6.7	6.47				5.07	
8/19/2020		7.06				7.21	5.24		
8/20/2020					6.34				6.43
9/29/2020	6		5.92	6.02			5.5	5.75	
9/30/2020									5.98
10/1/2020		5.83			6.44	5.78			

Prediction Limit

Constituent: pH (SU) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016		6.82 (o)		
8/31/2016			6.67 (o)	7.55 (o)
9/1/2016				
9/2/2016	6.54			
10/24/2016		5.99		
10/25/2016	6.25		5.8	6.92
10/26/2016	6.23			
1/23/2017		5.94		6.76
1/24/2017			5.82	
1/26/2017	6.4			
1/27/2017				
4/11/2017		5.88	5.78	6.72
4/12/2017	6.1			
6/20/2017				6.66
6/21/2017	6.11	5.73	5.67	
6/22/2017				
10/25/2017		6.13	5.72	6.77
10/26/2017	6.2			
4/9/2018			5.78	6.6
4/10/2018	6.17	5.95		
4/11/2018				
10/16/2018		5.94	5.74	6.63
10/17/2018	6.34			
3/26/2019			5.96	
3/27/2019	6.6	6		6.83
3/28/2019				
3/29/2019				
8/19/2019			5.59	
8/20/2019		5.89		
8/21/2019	6.3			6.94
10/7/2019				6.69
10/8/2019	6.38	5.93	5.74	
10/9/2019				
4/6/2020				6.65
4/7/2020		5.91	5.84	
4/8/2020	6.26			
4/9/2020				
6/23/2020				
6/24/2020				
6/25/2020	6.32		5.8	6.38
6/26/2020		5.94		
8/18/2020		6.48	6.15	
8/19/2020	6.47			6.62
8/20/2020				
9/29/2020	7.11	5.88	5.75	6.8
9/30/2020				
10/1/2020				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
12/16/1997	<1	2							
6/30/1998	<1	<1							
12/2/1998	0.654	0.709							
6/8/1999	1.46	<1							
12/7/1999	0.399	0.531							
6/15/2000	0.601	0.733							
12/12/2000	0.45	0.621							
12/5/2001	0.094	0.274							
6/26/2002	4.95	0.505							
12/3/2002	0.911	0.515							
6/11/2003	1.85	0.508							
12/10/2003	0.77	0.578							
6/15/2004	1.3	1.23							
12/14/2004	1.02	1.22							
6/2/2005	0.834	0.908							
12/14/2005	<1	0.825	133						
4/5/2006	<1	1.06	140						
10/30/2006	0.865	0.996	157						
5/10/2007	1.03	1.01	111						
11/17/2007	0.818	1.72	114						
5/2/2008			104						
5/3/2008	0.941	1.2							
10/22/2008	<1	<1	129						
5/5/2009				2.89					
5/6/2009		0.807			16.6				
5/7/2009	0.46					21.4			
5/12/2009							42.6	57.9	173
5/13/2009									
5/14/2009			157						
12/1/2009		0.644	142						
12/3/2009					12.3	11.6			
12/4/2009	1.06			3.13			58.4		195
12/5/2009								72.1	
5/25/2010		0.509			6.44	12.3	79.4		199
5/26/2010			120					70.3	
6/1/2010	5.56			14.5					
6/2/2010									
11/9/2010		0.348			6.83		111	74.8	
11/10/2010	0.241		100	5.04		10.6			189
5/18/2011									
5/19/2011									186
5/24/2011		0.532			8.55		171	87.2	
5/25/2011	0.383		88.8	4.57		11.9			
11/9/2011				4.15					
11/10/2011		0.209			9.74	100			
11/11/2011			96.6						
11/12/2011	<1						182	97.9	49.9
5/17/2012			88.9						177
5/18/2012		0.471			8.72				
5/30/2012						61.3	194	103	
5/31/2012	0.426			4.05					
11/9/2012		0.589	70.1		5.9	202	842 (o)	140	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
11/10/2012				5.68					184
11/11/2012	0.455 (J)								
5/7/2013									195
5/8/2013		0.504	80.5		5.66		173		
5/9/2013						33.4			
5/13/2013	2.61			2.45				160	
11/5/2013			71.6						178
11/6/2013		<1			9.04		471 (o)	146	
11/11/2013						316			
11/12/2013	<1			11.8					
5/20/2014		0.5 (J)			7.25		145		
5/21/2014			80.4			162		217	
5/28/2014				14.6					201
5/29/2014	1.41								
11/17/2014		<1	71				110	97	
11/18/2014					10	370			
11/19/2014									150
11/20/2014				12					
4/7/2015		0.469	70.6			235	145	125	
4/14/2015	0.377			8.71	9.61				
4/15/2015									195
10/28/2015		0.28	12.2			737	82.7	106	
10/29/2015					10.2				147
11/3/2015	0.215			5.14					
11/4/2015									
6/23/2016	<1	<1	61	6.9	9.8	380			
6/24/2016							79	170	200
8/30/2016		<1			9.5				
8/31/2016	<1		57			600			
9/1/2016							94	130	200
9/2/2016				6.1					
10/24/2016					11				
10/25/2016	0.3 (J)	0.4 (J)	56			820	73	200	
10/26/2016				22					200
1/23/2017					11				
1/24/2017	<1	<1				370			
1/26/2017			57	5.1			110	130	
1/27/2017									200
4/11/2017	<1	<1			9.1	340	77	150	
4/12/2017			47	4					190
6/20/2017	<1	<1							
6/21/2017				4.6	10	540	75	130	200
6/22/2017			49						
10/25/2017	<1	<1	49		11	580			190
10/26/2017				5.4			61	110	
4/9/2018						230			
4/10/2018	<1	<1	46	6.7	9.5		58	130	
4/11/2018									200
10/16/2018	<1	<1			10	520		84	
10/17/2018			42	6.8			47		190
3/26/2019						430			
3/27/2019	0.38 (J)	0.55 (J)		7.2	9.1				190

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
3/28/2019			45				59	220	
10/7/2019									
10/8/2019	0.7 (J)	0.7 (J)		31	55	950			
10/9/2019			42				57	210	180
4/6/2020									
4/7/2020	0.67 (J)	<1			8	270			
4/8/2020			39	5.9			47	200	
4/9/2020									190
6/23/2020									
6/24/2020							67	310	190
6/25/2020	1.6	<1	42	5.6		410			
6/26/2020					9				
9/29/2020	<1	<1	38	7.7	8.3	540	66	200	
9/30/2020									170
10/1/2020									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009				
5/13/2009	0.938	0.984		
5/14/2009			109	
12/1/2009				
12/3/2009	0.422	0.544	107	
12/4/2009				
12/5/2009				
5/25/2010				
5/26/2010	0.262	0.37	109	
6/1/2010				
6/2/2010				129
11/9/2010	<1	0.299	100	
11/10/2010				140
5/18/2011			110	
5/19/2011	0.359	0.502		269
5/24/2011				
5/25/2011				
11/9/2011				308
11/10/2011				
11/11/2011	<1	0.172	107	
11/12/2011				
5/17/2012	0.398	0.438	98	
5/18/2012				
5/30/2012				296
5/31/2012				
11/9/2012	0.545	0.537	90.4	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)
11/10/2012				
11/11/2012				225
5/7/2013	0.797	0.437	96.2	
5/8/2013				
5/9/2013				268
5/13/2013				
11/5/2013			86.9	
11/6/2013	0.86	<1		
11/11/2013				132
11/12/2013				
5/20/2014		0		
5/21/2014	1.02		106	
5/28/2014				
5/29/2014				216
11/17/2014				
11/18/2014	1.2	<1	99	
11/19/2014				160
11/20/2014				
4/7/2015	1.14	0.464	82.3	
4/14/2015				105
4/15/2015				
10/28/2015	1.02	0.293	78	
10/29/2015				
11/3/2015				
11/4/2015				74.4
6/23/2016	1	<1	78	18
6/24/2016				
8/30/2016				
8/31/2016	1.1		72	19
9/1/2016		<1		
9/2/2016				
10/24/2016				
10/25/2016	4.7 (o)	0.38 (J)		42
10/26/2016			77	
1/23/2017				12
1/24/2017				
1/26/2017	1.1		75	
1/27/2017		<1		
4/11/2017				7.1
4/12/2017	0.9 (J)	<1	69	
6/20/2017				8.5
6/21/2017			73	
6/22/2017	0.99 (J)	<1		
10/25/2017	0.95 (J)			9.1
10/26/2017		<1	72	
4/9/2018				11
4/10/2018				
4/11/2018	0.9 (J)	<1	69	
10/16/2018				14
10/17/2018	0.95 (J)	<1	67	
3/26/2019				
3/27/2019				15

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)
3/28/2019	1	0.38 (J)	66	
10/7/2019				12
10/8/2019				
10/9/2019	1.5	0.59 (J)	63	
4/6/2020				10
4/7/2020				
4/8/2020		<1		
4/9/2020	1.1		59	
6/23/2020		<1	62	
6/24/2020				
6/25/2020				3.3
6/26/2020	0.94 (J)			
9/29/2020				4.1
9/30/2020				
10/1/2020	0.82 (J)	<1	57	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWA-3 (bg)	ARGWA-13 (bg)	ARGWC-9	ARGWA-14 (bg)	ARGWC-8	ARGWC-10
8/30/2016	100	58							
8/31/2016			150	80	1000	74	330	310	
9/1/2016									100
9/2/2016									
10/24/2016	136								
10/25/2016		34	171	65	1280	67	459		65
10/26/2016								283	
1/23/2017	16						340		
1/24/2017		120		70	590				
1/26/2017			120			84		300	
1/27/2017									86
4/11/2017	120	76		64	610		300		
4/12/2017			150			88		310	110
6/20/2017		36		52			210		
6/21/2017	140				880			300	
6/22/2017			130			76			82
10/25/2017	120	64	130	72	900	60	280		
10/26/2017								270	38
4/9/2018					440		280		
4/10/2018	130	60	140	86					
4/11/2018						24		240	50
10/16/2018	150	54		74	910		48		
10/17/2018			180			96		120	120
3/26/2019					750				
3/27/2019	110	61		69			330		
3/28/2019			130			77		290	82
10/7/2019							230		
10/8/2019	130	68		66	1500				
10/9/2019			130			75		290	92
4/6/2020							280		
4/7/2020	120	65		64	480				
4/8/2020			130						82
4/9/2020						70		270	
9/29/2020	130	61	140	62	880		210		
9/30/2020									
10/1/2020						55		270	93

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/3/2020 2:22 PM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 3

	ARGWC-16	ARGWC-18	ARGWC-17	ARGWC-15
8/30/2016				
8/31/2016				
9/1/2016	240	450	220	
9/2/2016				150
10/24/2016				
10/25/2016	304		114	
10/26/2016		404		125
1/23/2017				
1/24/2017				
1/26/2017	170		170	86
1/27/2017		460		
4/11/2017	260		160	
4/12/2017		430		140
6/20/2017				
6/21/2017	230	430	140	120
6/22/2017				
10/25/2017		380		
10/26/2017	170		120	96
4/9/2018				
4/10/2018	260		110	130
4/11/2018		430		
10/16/2018	140			
10/17/2018		470	140	160
3/26/2019				
3/27/2019		430		150
3/28/2019	370		120	
10/7/2019				
10/8/2019				130
10/9/2019	350	420	120	
4/6/2020				
4/7/2020				
4/8/2020	350		91	130
4/9/2020		440		
9/29/2020	340		140	130
9/30/2020		390		
10/1/2020				

FIGURE F.

Appendix III Trend Tests - Prediction Limit Exceedances - All Results (No Significant)

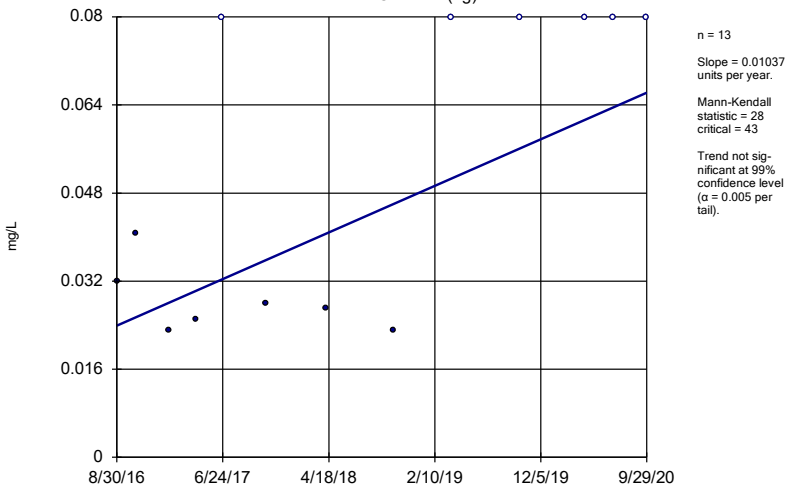
Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 12:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	ARGWA-12 (bg)	0.01037	28	43	No	13	46.15	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-13 (bg)	0.06799	39	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-14 (bg)	0.001283	11	43	No	13	15.38	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-3 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-5 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-18	0	-2	-43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-8	-0.03615	-25	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-12 (bg)	-0.003694	-5	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-13 (bg)	0.009035	10	48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-14 (bg)	-0.03435	-21	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-3 (bg)	0.004239	5	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-5 (bg)	0.01479	10	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-15	0.05281	34	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-16	-0.009419	-8	-53	No	15	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-12 (bg)



n = 13

Slope = 0.01037 units per year.

Mann-Kendall statistic = 28
critical = 43

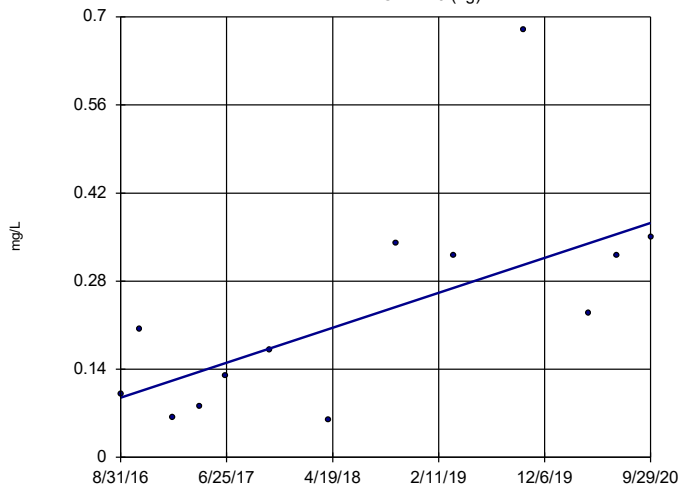
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-13 (bg)



n = 13

Slope = 0.06799 units per year.

Mann-Kendall statistic = 39
critical = 43

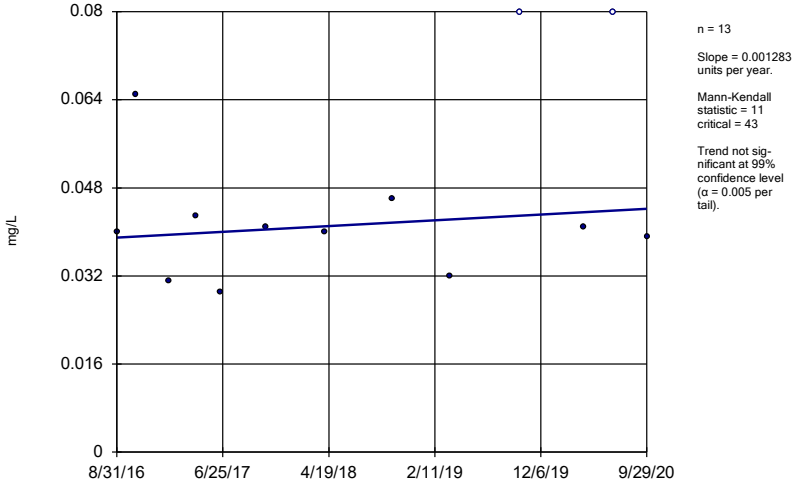
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-14 (bg)



n = 13

Slope = 0.001283 units per year.

Mann-Kendall statistic = 11
critical = 43

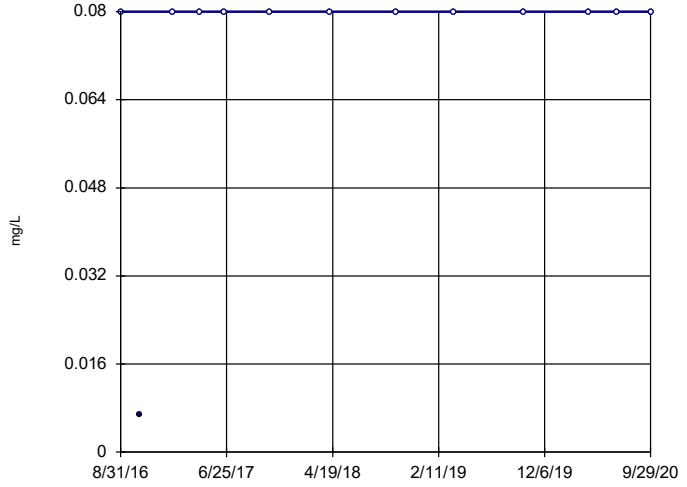
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-3 (bg)



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = 10
critical = 43

Trend not significant at 99% confidence level (α = 0.005 per tail).

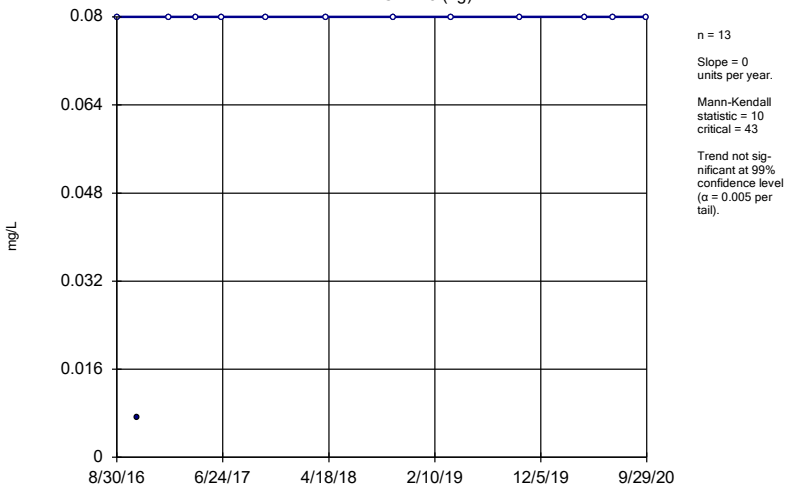
Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-5 (bg)



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = 10 critical = 43

Trend not significant at 99% confidence level (α = 0.005 per tail).

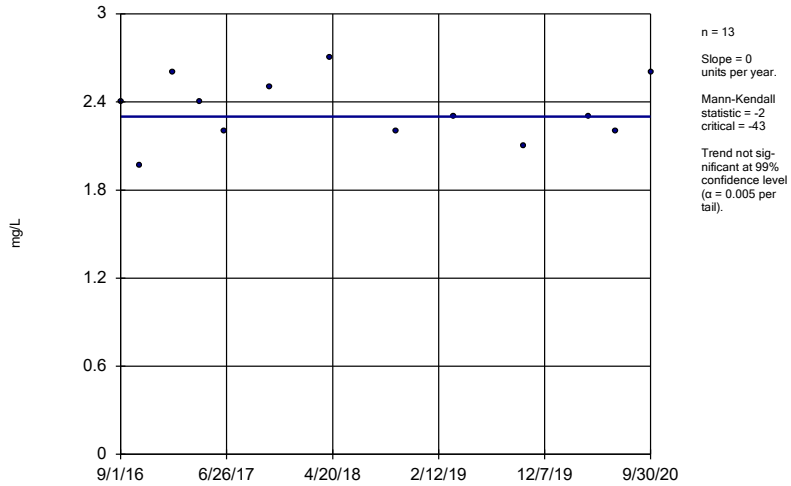
Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-18



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = -2 critical = -43

Trend not significant at 99% confidence level (α = 0.005 per tail).

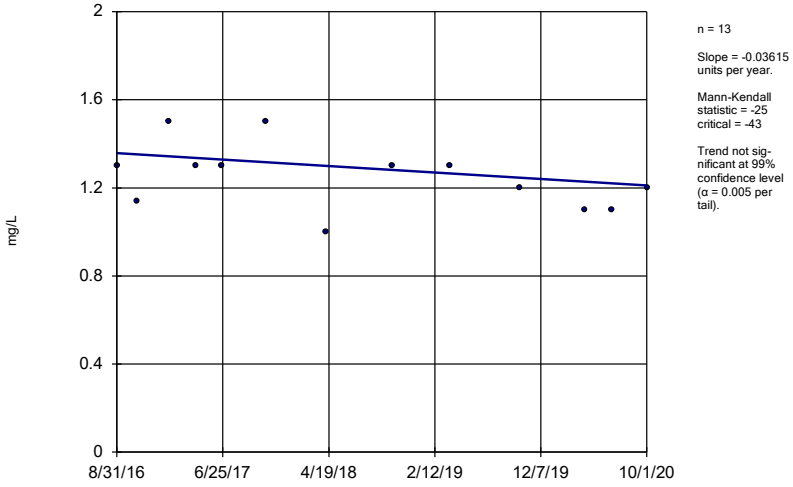
Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-8



n = 13

Slope = -0.03615 units per year.

Mann-Kendall statistic = -25 critical = -43

Trend not significant at 99% confidence level (α = 0.005 per tail).

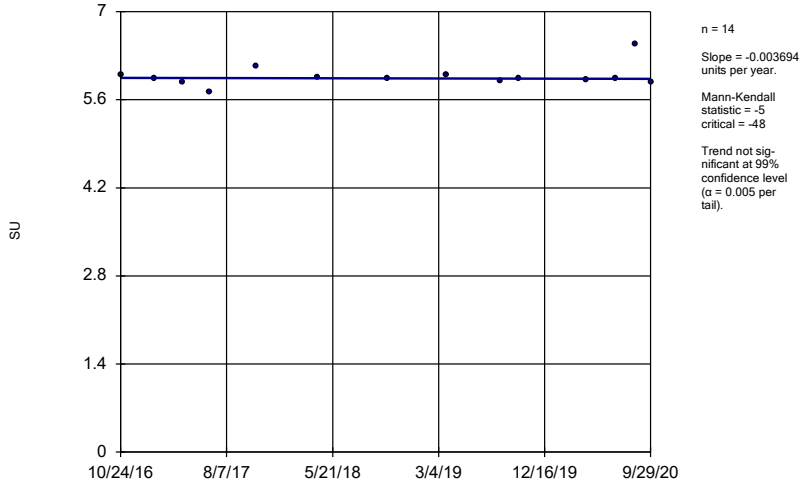
Constituent: Boron Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-12 (bg)



n = 14

Slope = -0.003694 units per year.

Mann-Kendall statistic = -5 critical = -48

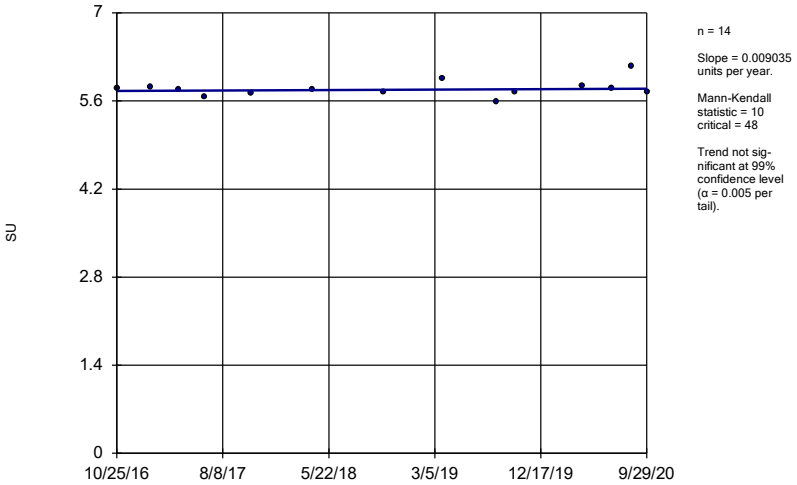
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWA-13 (bg)



n = 14

Slope = 0.009035 units per year.

Mann-Kendall statistic = 10 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

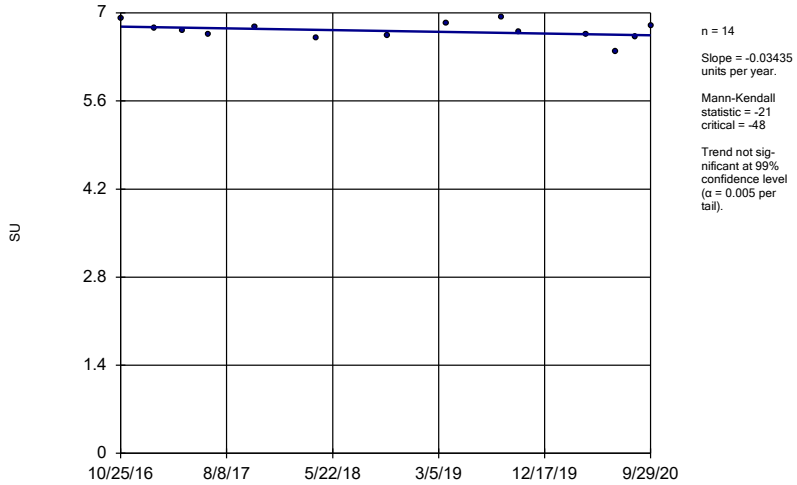
Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-14 (bg)



n = 14

Slope = -0.03435 units per year.

Mann-Kendall statistic = -21 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

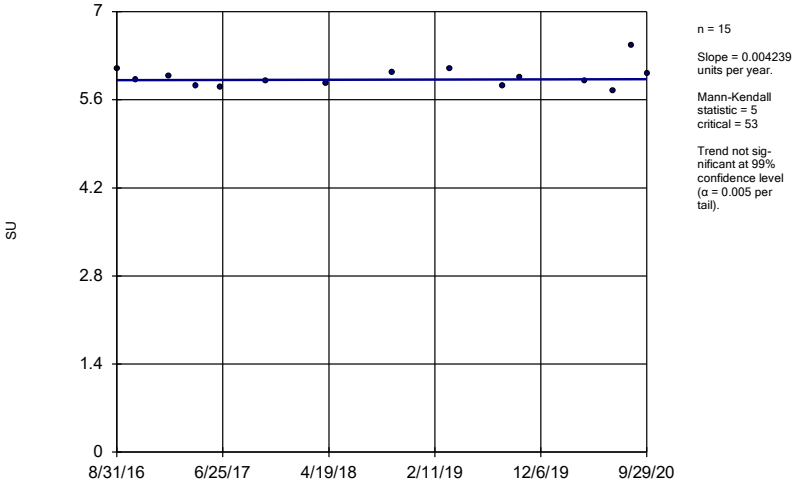
Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-3 (bg)



n = 15

Slope = 0.004239 units per year.

Mann-Kendall statistic = 5 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

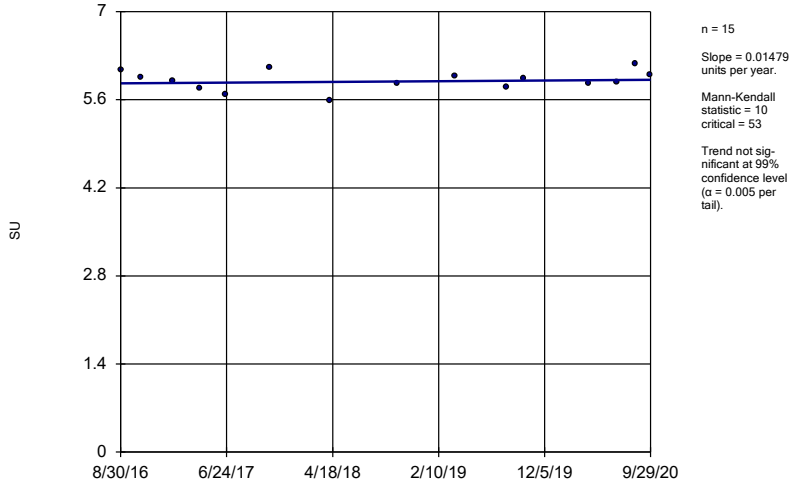
Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-5 (bg)



n = 15

Slope = 0.01479 units per year.

Mann-Kendall statistic = 10 critical = 53

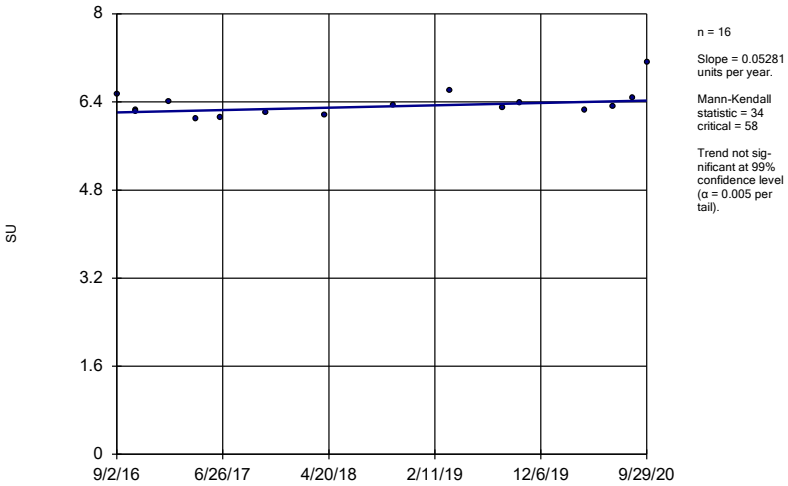
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sen's Slope Estimator

ARGWC-15



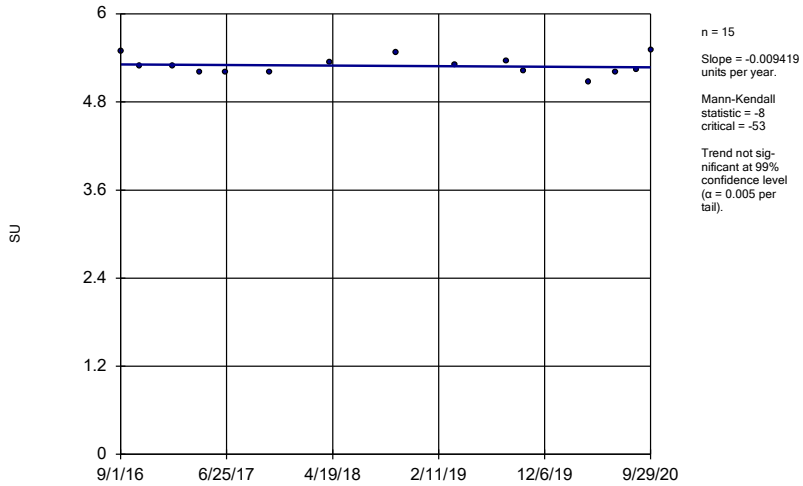
Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-16



Constituent: pH Analysis Run 12/2/2020 12:36 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: Arkwright No 3

FIGURE G.

Upper Tolerance Limit Summary Table

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/2/2020, 1:26 PM

Constituent	Upper Lim.	Lower Lim.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.002	n/a	n/a	60	n/a	n/a	96.67	n/a	n/a	0.04607	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	186	n/a	n/a	79.57	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.24	n/a	n/a	182	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.0025	n/a	n/a	65	n/a	n/a	95.38	n/a	n/a	0.03565	NP Inter(NDs)
Cadmium (mg/L)	0.0043	n/a	n/a	178	n/a	n/a	93.82	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	65	n/a	n/a	56.92	n/a	n/a	0.03565	NP Inter(NDs)
Cobalt (mg/L)	0.0025	n/a	n/a	70	n/a	n/a	82.86	n/a	n/a	0.02758	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.066	n/a	n/a	65	0.4287	0.3187	0	None	No	0.05	Inter
Fluoride (mg/L)	0.53	n/a	n/a	75	n/a	n/a	41.33	n/a	n/a	0.02134	NP Inter(normality)
Lead (mg/L)	0.013	n/a	n/a	184	n/a	n/a	88.04	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.0099	n/a	n/a	69	n/a	n/a	43.48	n/a	n/a	0.02904	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	55	n/a	n/a	94.55	n/a	n/a	0.05954	NP Inter(NDs)
Molybdenum (mg/L)	0.015	n/a	n/a	70	n/a	n/a	90	n/a	n/a	0.02758	NP Inter(NDs)
Selenium (mg/L)	0.034	n/a	n/a	175	n/a	n/a	82.29	n/a	n/a	NaN	NP Inter(NDs)
Silver (mg/L)	0.0051	n/a	n/a	154	n/a	n/a	93.51	n/a	n/a	0.0003711	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	65	n/a	n/a	89.23	n/a	n/a	0.03565	NP Inter(NDs)

FIGURE H.

PLANT ARKWRIGHT LF #3 GWPS			
Constituent Name	**MCL**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006	0.002	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.24	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0043	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.0025	0.0025
Combined Radium, Total (pCi/L)	5	1.1	5
Fluoride, Total (mg/L)	4	0.53	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.0099	0.0099
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.015	0.015
Selenium, Total (mg/L)	0.05	0.034	0.05
Silver, Total (mg/L)	n/a	0.0051	0.0051
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

FIGURE I.

Confidence Intervals Summary - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	**ARAMW-4**	**0.007045**	**0.003405**	**0.0025**	**Yes**	**4**	**0.005225**	**0.0008016**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**ARGWC-17**	**0.02709**	**0.01782**	**0.0025**	**Yes**	**14**	**0.02246**	**0.006545**	**0**	**None**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**ARGWC-8**	**0.04392**	**0.0369**	**0.015**	**Yes**	**14**	**0.04041**	**0.004953**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals Summary - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.0011	0.0004	0.01	No	15	0.001027	0.000289	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-15	0.001	0.00062	0.01	No	15	0.000932	0.0001861	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-16	0.001	0.001	0.01	No	15	0.0009493	0.000135	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-17	0.0015	0.00087	0.01	No	15	0.0009767	0.0002067	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-18	0.0016	0.00066	0.01	No	15	0.0009727	0.0002554	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-7	0.0015	0.00078	0.01	No	15	0.001019	0.0001447	86.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-8	0.0014	0.00072	0.01	No	15	0.0009407	0.0002287	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-9	0.0011	0.00051	0.01	No	15	0.000974	0.0001309	86.67	None	No	0.01	NP (NDs)
Barium (mg/L)	ARGWC-10	0.03345	0.03009	2	No	15	0.03177	0.002478	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-15	0.038	0.028	2	No	15	0.03412	0.01164	0	None	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-16	0.05553	0.04603	2	No	15	0.05078	0.007013	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-17	0.051	0.04295	2	No	15	0.04697	0.005943	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-18	0.03941	0.03485	2	No	15	0.03713	0.003363	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-7	0.04072	0.03444	2	No	15	0.03758	0.004637	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-8	0.04917	0.04274	2	No	15	0.04595	0.004741	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-9	0.04871	0.04375	2	No	15	0.04623	0.003659	0	None	No	0.01	Param.
Beryllium (mg/L)	ARGWC-16	0.0025	0.00027	0.004	No	13	0.002328	0.0006185	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-17	0.0025	0.00025	0.004	No	13	0.001353	0.001113	46.15	None	No	0.01	NP (normality)
Beryllium (mg/L)	ARGWC-18	0.0025	0.00034	0.004	No	13	0.002334	0.0005991	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-7	0.0025	0.00041	0.004	No	13	0.002155	0.0008454	84.62	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-8	0.0025	0.00047	0.004	No	13	0.002344	0.000563	92.31	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-9	0.0025	0.00037	0.004	No	13	0.002336	0.0005908	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-10	0.005569	0.004328	0.1	No	13	0.004962	0.000878	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	ARGWC-15	0.0087	0.0017	0.1	No	13	0.002492	0.001867	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-16	0.002247	0.00163	0.1	No	13	0.001938	0.0004154	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-17	0.0021	0.0016	0.1	No	13	0.001923	0.0002204	76.92	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-7	0.003841	0.003021	0.1	No	13	0.003431	0.0005513	0	None	No	0.01	Param.
Chromium (mg/L)	ARGWC-8	0.002	0.0017	0.1	No	13	0.001938	0.0001557	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-9	0.0105	0.008427	0.1	No	13	0.009462	0.001391	0	None	No	0.01	Param.
Cobalt (mg/L)	**ARAMW-4**	**0.007045**	**0.003405**	**0.0025**	**Yes**	**4**	**0.005225**	**0.0008016**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	ARGWC-10	0.0025	0.00017	0.0025	No	14	0.001831	0.001097	71.43	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-15	0.001959	0.0002239	0.0025	No	14	0.004064	0.007983	28.57	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-16	0.0025	0.00026	0.0025	No	14	0.002004	0.0009868	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	**ARGWC-17**	**0.02709**	**0.01782**	**0.0025**	**Yes**	**14**	**0.02246**	**0.006545**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	ARGWC-18	0.001567	0.001133	0.0025	No	14	0.00135	0.0003061	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-7	0.0025	0.00034	0.0025	No	14	0.002173	0.000832	85.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-8	0.0025	0.00017	0.0025	No	14	0.001526	0.001169	57.14	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-9	0.0025	0.00021	0.0025	No	14	0.001999	0.0009951	78.57	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	ARGWC-10	0.316	-0.02493	5	No	13	0.1455	0.2292	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-15	2.11	0.276	5	No	13	0.7041	0.7117	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-16	0.79	-0.0245	5	No	13	0.4041	0.4201	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-17	0.722	0.1139	5	No	13	0.418	0.4089	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-18	0.5631	0.1903	5	No	13	0.3767	0.2506	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-7	0.4682	0.1939	5	No	13	0.331	0.1844	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-8	0.4083	0.1359	5	No	13	0.2721	0.1832	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-9	0.4137	0.1008	5	No	13	0.2573	0.2104	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-10	0.1	0.047	4	No	15	0.07927	0.02754	53.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-15	0.21	0.081	4	No	15	0.1236	0.07232	26.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-16	0.1	0.033	4	No	15	0.07727	0.03119	60	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-17	0.1	0.031	4	No	15	0.08153	0.02951	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-18	0.09978	0.07722	4	No	14	0.0885	0.01592	7.143	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-7	0.1	0.032	4	No	15	0.08273	0.03085	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	ARGWC-8	0.1419	0.1007	4	No	14	0.1213	0.02911	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-9	0.2	0.038	4	No	15	0.0868	0.04317	60	None	No	0.01	NP (NDs)

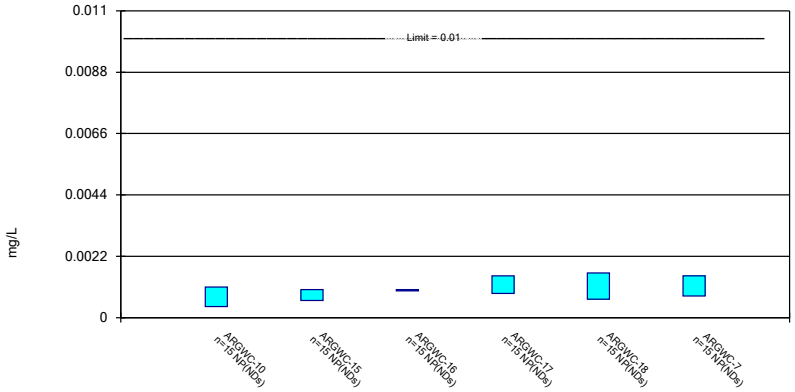
Confidence Intervals Summary - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 3 Printed 12/4/2020, 11:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	ARGWC-10	0.031	0.00013	0.013	No	15	0.002942	0.007765	86.67	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-15	0.0016	0.0003	0.013	No	15	0.0013	0.001215	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-18	0.001	0.00028	0.013	No	15	0.0008453	0.0003207	80	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-8	0.001	0.00019	0.013	No	15	0.000946	0.0002091	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-9	0.001	0.00016	0.013	No	15	0.000944	0.0002169	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-10	0.0055	0.0015	0.0099	No	14	0.004507	0.001367	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-15	0.005	0.0029	0.0099	No	14	0.004493	0.0008462	64.29	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-16	0.0076	0.0031	0.0099	No	14	0.004807	0.001283	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-17	0.0071	0.0023	0.0099	No	14	0.0047	0.001342	78.57	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-18	0.0062	0.0036	0.0099	No	14	0.005093	0.002402	14.29	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-7	0.005	0.0033	0.0099	No	14	0.004607	0.00145	42.86	None	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-8	0.004517	0.002906	0.0099	No	14	0.004443	0.001204	35.71	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	ARGWC-9	0.0061	0.005	0.0099	No	14	0.005079	0.000294	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-3	0.01004	0.0009593	0.015	No	4	0.0055	0.002	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-6	0.015	0.00065	0.015	No	4	0.01141	0.007175	75	None	No	0.0625	NP (NDs)
Molybdenum (mg/L)	ARGWC-15	0.015	0.00097	0.015	No	14	0.00717	0.007044	42.86	None	No	0.01	NP (normality)
Molybdenum (mg/L)	**ARGWC-8**	**0.04392**	**0.0369**	**0.015**	**Yes**	**14**	**0.04041**	**0.004953**	**0**	**None**	**No**	**0.01**	**Param.**
Selenium (mg/L)	ARGWC-15	0.005	0.0005	0.05	No	15	0.004089	0.001885	80	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-16	0.002317	0.001045	0.05	No	15	0.001745	0.001103	6.667	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	ARGWC-7	0.005	0.00029	0.05	No	15	0.004686	0.001216	93.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-9	0.005	0.00029	0.05	No	15	0.004369	0.001666	86.67	None	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-15	0.001	0.00037	0.0051	No	10	0.000855	0.0003089	80	None	No	0.011	NP (NDs)
Silver (mg/L)	ARGWC-16	0.001	0.001	0.0051	No	10	0.000926	0.000234	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	ARGWC-15	0.001	0.000095	0.002	No	13	0.0009304	0.000251	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-16	0.001	0.00027	0.002	No	13	0.0008862	0.0002779	84.62	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

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

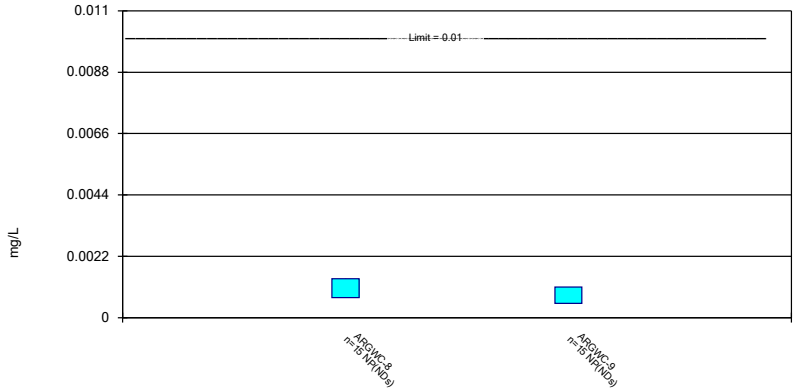


Constituent: Arsenic Analysis Run 12/4/2020 11:44 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

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

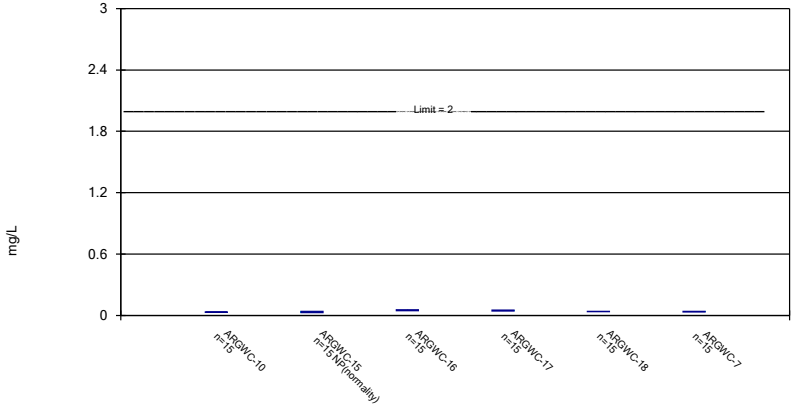


Constituent: Arsenic Analysis Run 12/4/2020 11:44 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

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

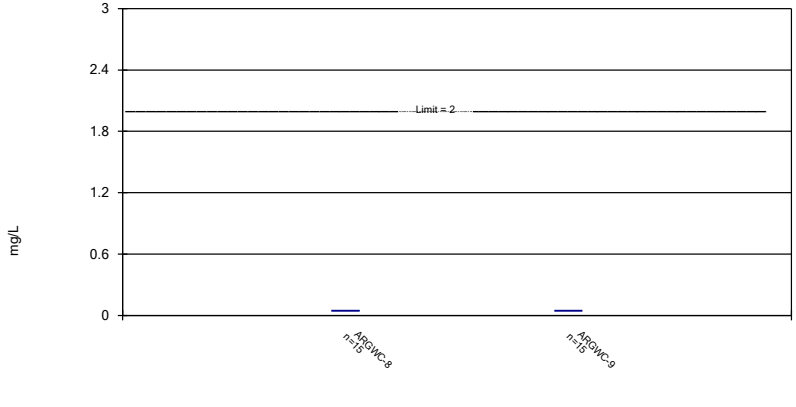


Constituent: Barium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Parametric Confidence Interval

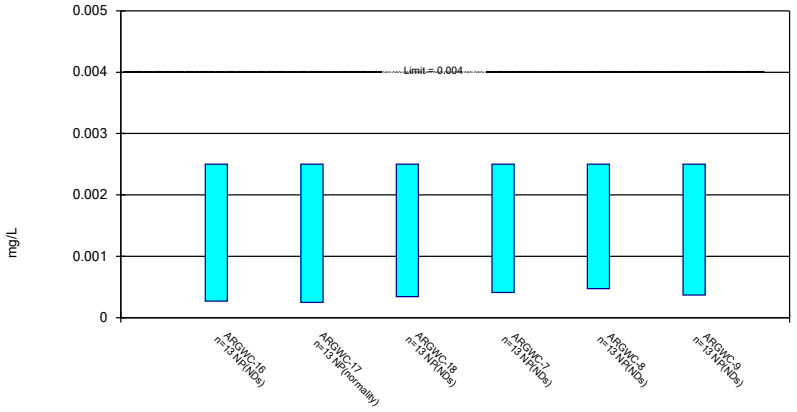
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

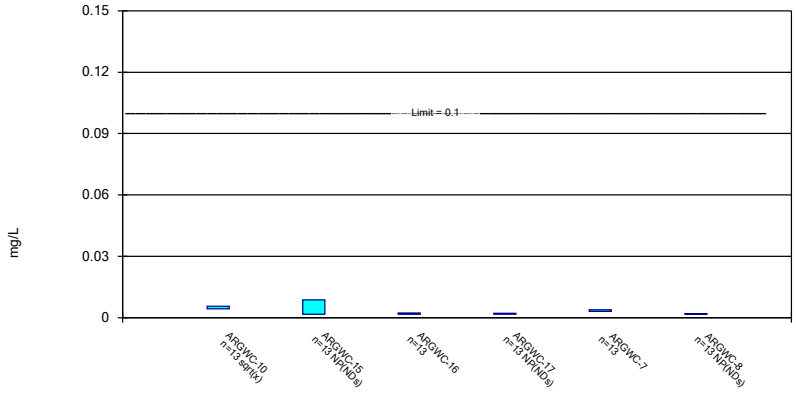
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

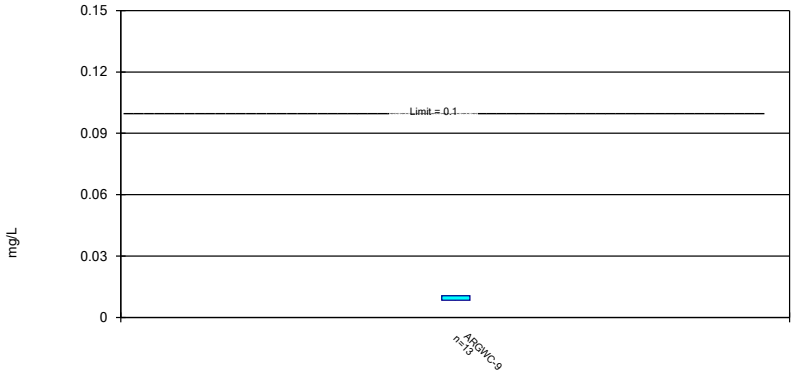
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric Confidence Interval

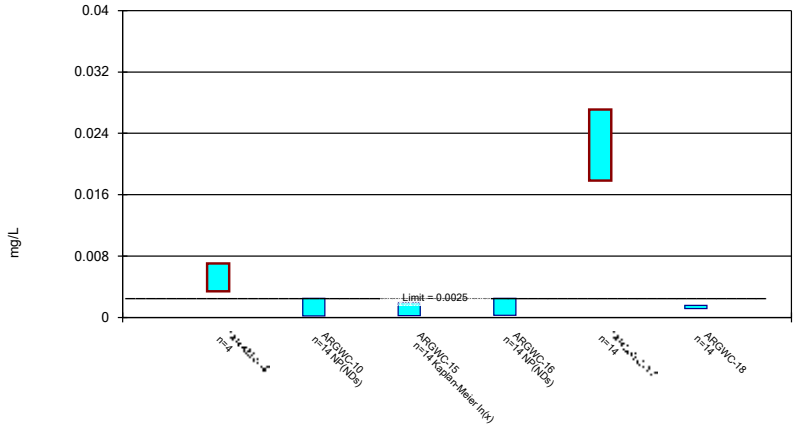
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

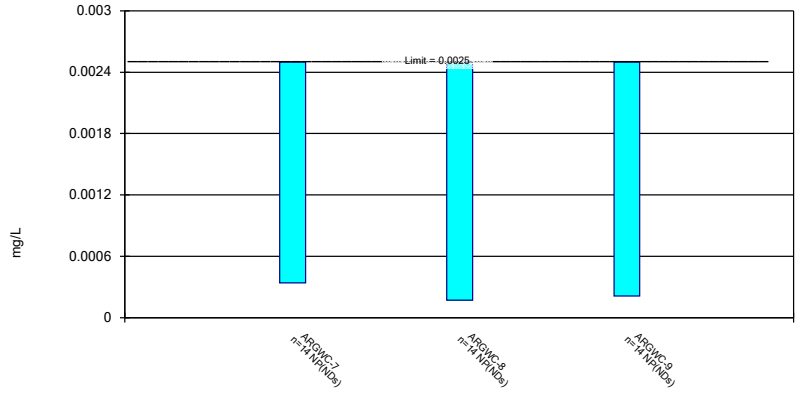
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

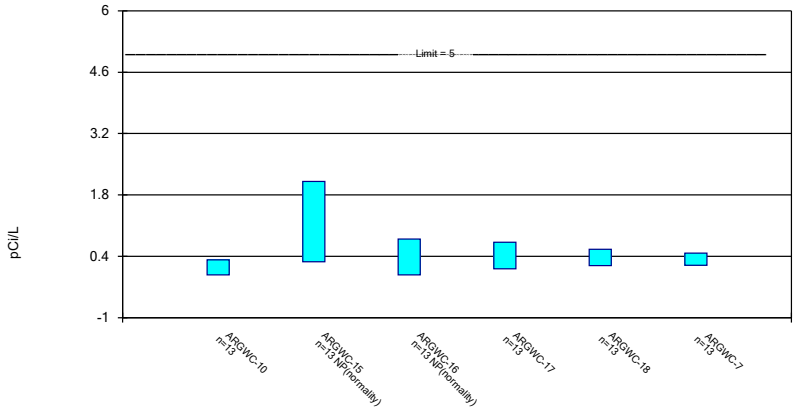
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cobalt Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

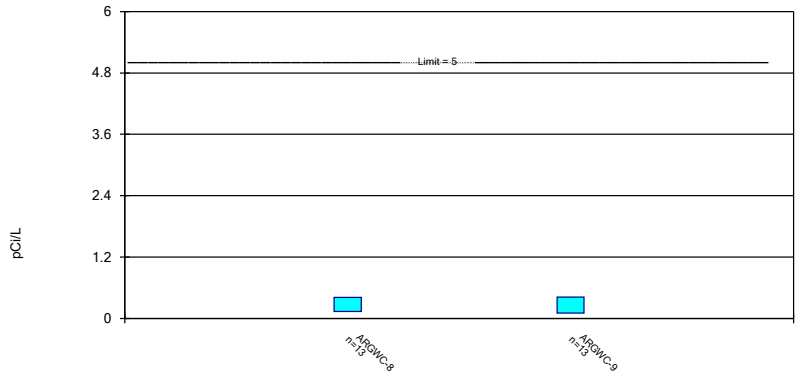
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric Confidence Interval

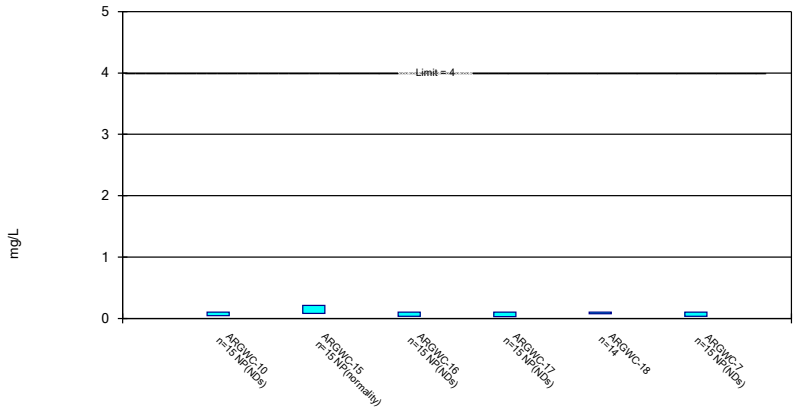
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

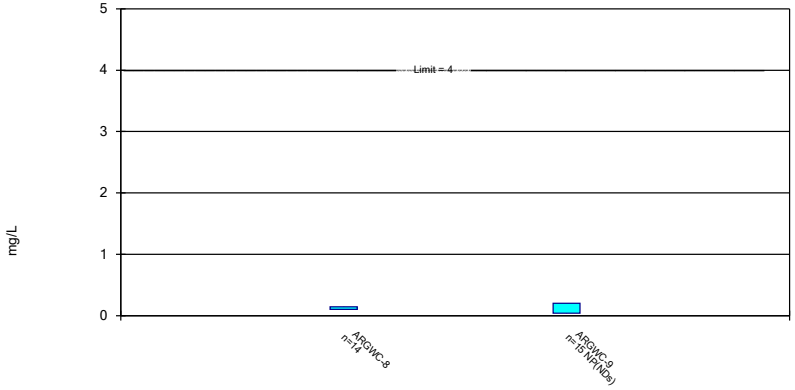
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

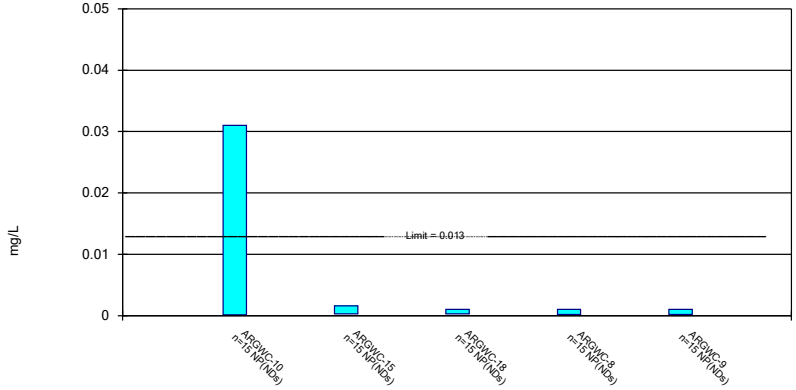
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

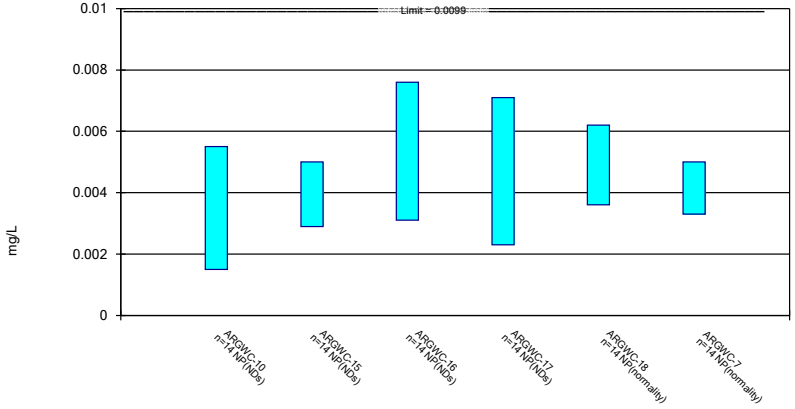
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

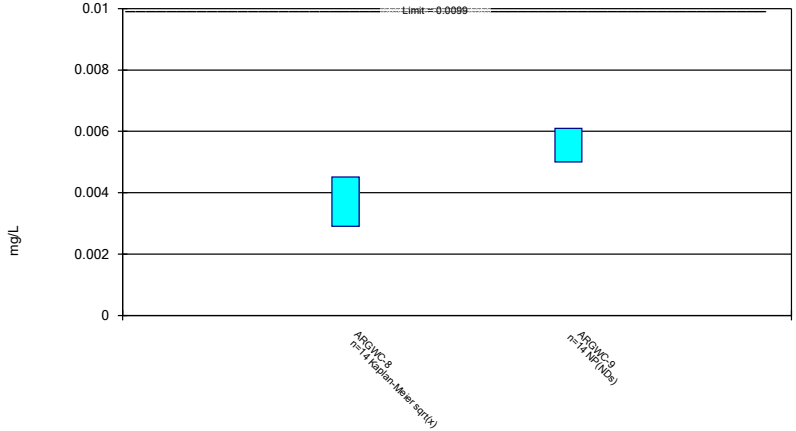
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

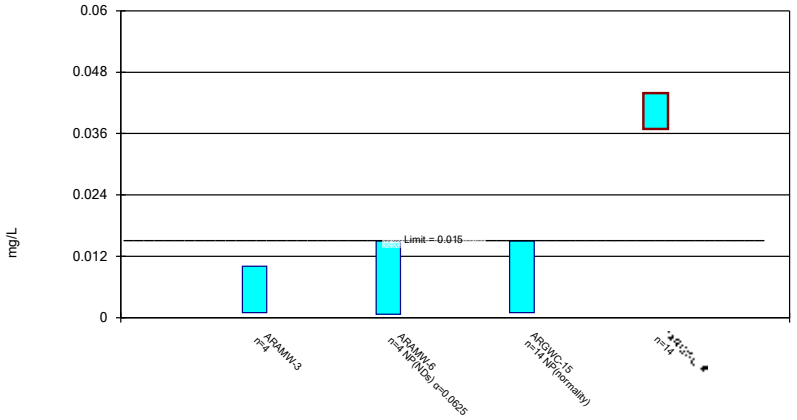
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

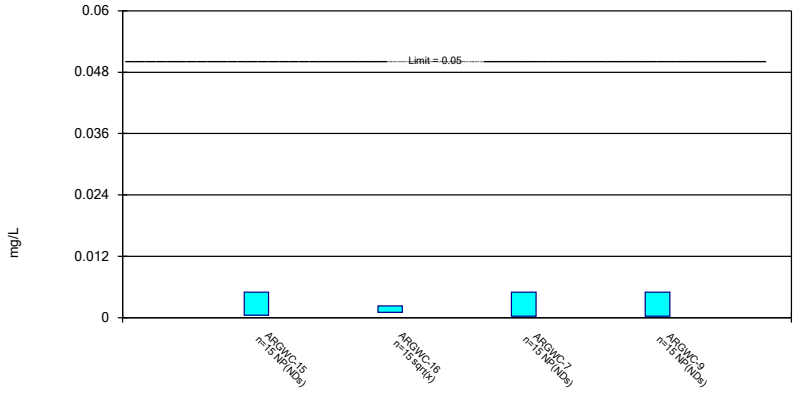
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Parametric and Non-Parametric (NP) Confidence Interval

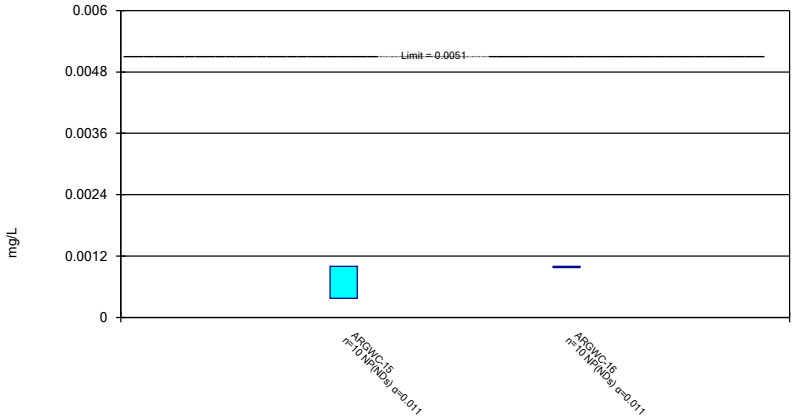
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

Non-Parametric Confidence Interval

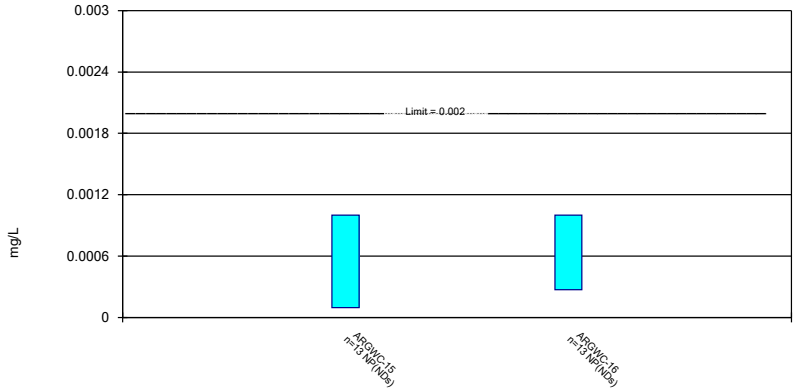
Compliance Limit is not exceeded.



Constituent: Silver Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

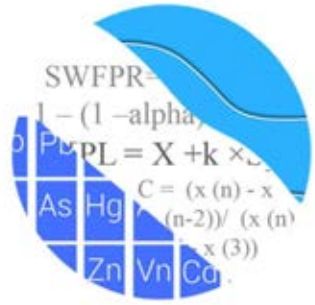
Non-Parametric Confidence Interval

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



Constituent: Thallium Analysis Run 12/4/2020 11:45 AM View: Appendix I & IV
Plant Arkwright Client: Southern Company Data: Arkwright No 3

GROUNDWATER STATS CONSULTING



July 27, 2021

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374

Re: Plant Arkwright #3 Ash Pond
February 2021 Semi-Annual Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the February 2021 Semi-Annual Groundwater statistical analysis of monitoring data for Georgia Power Company's Plant Arkwright #3 Ash Pond. The analysis complies with the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Semi-annual sampling is conducted for USEPA's CCR Appendix III and IV parameters in addition to Appendix I parameters in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** ARGWA-3, ARGWA-5, ARGWA-12, ARGWA-13, ARGWA-14, and ARGWA-24
- **Downgradient wells:** ARGWC-7, ARGWC-8, ARGWC-9, ARGWC-10, ARGWC-15, ARGWC-16, ARGWC-17, and ARGWC-18
- **Delineation wells:** ARAMW-3, ARAMW-4, and ARAMW-6

Note that upgradient well ARGWA-24 was first sampled during December 2020 and has a maximum of 2 sampling events; therefore, data from this well is included in the calculation of statistical limits. For the delineation wells, sampling began in 2020 and when

a minimum of 4 samples is available, confidence intervals are used to evaluate the Appendix IV constituents.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR and Georgia EPD programs monitor the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **Georgia Appendix I:** arsenic, barium, cadmium, lead, selenium, and silver
- **CCR Appendix III:** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **CCR Appendix IV:** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lithium, lead, mercury, molybdenum, selenium, and thallium

Data for Appendix III constituents were analyzed using prediction limits; data for Appendix I constituents were analyzed using prediction limits and confidence intervals; and data for Appendix IV were analyzed using confidence intervals. Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. Summaries of well/constituent pairs with 100% non-detects since 2016 for Appendix I and IV constituents follow this letter. Additionally, when Appendix IV constituents are not detected during a scheduled Scan event, no statistical analyses are required during the semi-annual sample event. During the annual Scan event conducted in August 2020, antimony, cadmium, and mercury were not detected and, therefore, were not required to be sampled during the February 2021 event. Note, however, that because cadmium is an Appendix I constituent, this analyte was sampled at all wells during the February 2021 sampling event, but all samples were non-detect. All available data for antimony, cadmium, and mercury were plotted on the time series graphs and box plots.

Time series plots for all well/constituent pairs are provided and are particularly useful for screening parameters detected in downgradient wells which require statistical analyses (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).

Based on the previous screening, described below, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends;

3) most appropriate statistical method 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 report to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. 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. Power curves were based on the following:

Georgia Appendix I Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 5 (cadmium was not detected during the August 2020 Scan event and was 100% non-detect in downgradient wells)
- # Downgradient wells: 8

CCR Appendix III Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 7
- # Downgradient wells: 8

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals, as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with parametric limits is based on an annual 10% (5% per semi-annual event) as recommend by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009).

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <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 most recent practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect 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% non-detects.

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 2019

Outliers

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells and parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. Several values were flagged as outliers as a result of the Tukey's tests. In some cases, high values not identified by this test were flagged as outliers so that resulting prediction limits will be lower and capable of detecting future changes at these wells. Outliers were flagged in downgradient wells, though there are no intrawell statistical analyses in the current report. For the analysis of the Appendix IV constituents, this improves the estimate of downgradient confidence intervals.

A summary of flagged values is included in Figure C. When the most recent values are identified as outliers in upgradient wells, those values are not flagged in the database at that time (except in cases where they would cause background limits to be elevated) as they may represent a possible trend in an upgradient well. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative

to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers. Due to changing reporting limits, when non-detects are replaced with the most recent reporting limit, previously flagged "J" values (or estimated values) are sometimes flagged as outliers if they are much higher than current reporting limits.

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

Seasonality

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.

Trends

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, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. When any 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.

Several statistically significant increasing and decreasing trends were noted for constituents in both upgradient and downgradient wells, and the results of these trend tests were included with the previous screening. With one exception, no adjustments were required to these records as the magnitudes of the trends are low relative to the average

concentrations at these wells. The exception is selenium at upgradient well ARGWA-13 which has higher reported values since 2014 compared to those previously reported. Because this is an upgradient well, this suggests groundwater concentrations are naturally changing unrelated to the site. Therefore, the earlier portion of the record is truncated so that resulting analyses using selenium data from this well, including interwell prediction limits, will be representative of present-day conditions. Truncated data are shown in a lighter font on the data pages this report. Adjusted date ranges are presented in the Date Range Table.

Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells for constituents detected in downgradient wells. The ANOVA 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 are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified significant differences among upgradient well data for several constituents. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix I and Appendix III constituents in accordance with Georgia EPD requirements.

Prediction Limits Appendix I & III Parameters – February 2021

All Appendix I and III parameters were analyzed using interwell prediction limits. Upgradient well data were re-assessed using time series for potential outliers during this analysis. No new values were flagged and a summary of flagged outliers follows this report (Figure C).

Note that the interwell limit for sulfate is high relative to the majority of downgradient well concentrations (except for downgradient well ARAMW-4) and is a result of the reported concentrations in upgradient well ARGWA-13, which reflect natural variation in groundwater quality at the site. Since this limit will not be sensitive to changes in sulfate concentrations in downgradient wells, trend tests were performed as a secondary measure to identify whether concentrations are changing over time at each of these wells.

Upgradient well data were also evaluated to determine whether similar patterns are observed upgradient of the facility which would indicate that groundwater is naturally changing over time. The results are discussed below in the trend test section.

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through February 2021 for Appendix I and III constituents (Figures D & E, respectively). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified, and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Summary tables, along with complete results of the interwell prediction limits for Appendix I and III constituents, follow this letter. No exceedances were noted for Appendix I, but the following exceedances were identified for the Appendix III constituents:

Appendix III constituents:

- Boron: ARGWC-8 and ARGWC-18
- pH: ARGWC-16 and ARGWC-17

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 F). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of natural variability in groundwater quality unrelated to practices at the site. As mentioned above, trend tests for sulfate were included to monitor concentrations at each well. Note that samples for sulfate were collected prior to 2016 and all data were evaluated in the trend analyses. Both a summary table and graphical display of trend tests results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing trends:

- Boron: ARGWA-13 (upgradient)
- Sulfate: ARGWA-13 (upgradient) and ARGWC-16

Decreasing trends:

- Sulfate: ARGWA-5 (upgradient), ARGWA-14 (upgradient), ARGWC-7, ARGWC-8, ARGWC-9, and ARGWC-17

As discussed above, the similar patterns noted for the increasing trends for sulfate occur both upgradient and downgradient of the facility with the highest concentrations observed upgradient of the site. These patterns appear to represent natural variation in groundwater.

Confidence Interval Analysis of Appendix I & IV Parameters – February 2021

For Appendix I and IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Downgradient and delineation well/constituent pairs that have 100% ND or trace values below the reporting limits do not require analysis. Data from upgradient wells for Appendix I and IV parameters are reassessed for outliers during each analysis. No new outliers were flagged during this analysis and a summary of flagged outliers follows this report (Figure C).

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data for Appendix I and IV constituents (Figure G). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects 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 Georgia EPD Rule 391-3-4-.10(6)(a). As described in 40 CFR §257.95(h) (1-3), 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 Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix I and IV constituents for the February 2021 sample event for the state rules (Figure H). To complete the statistical comparison to GWPS, confidence

intervals were constructed for each of the Appendix I and Appendix IV constituents in accordance with the state requirements in each downgradient well and delineation wells with a minimum of 4 samples (Figure I). As mentioned above, antimony, cadmium, and mercury did not require confidence intervals. 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. Summaries and graphical results of the confidence intervals analyses follow this letter. Exceedances were noted for the following well/constituent pairs:

- Cobalt: ARGWC-17
- Lithium: ARAMW-4
- Molybdenum: ARGWC-8

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Arkwright #3 Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Easton Rayner
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects

Analysis Run 3/30/2021 3:14 PM View: 100% NDs
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Antimony (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWA-12, ARGWA-13, ARGWA-3, ARGWA-5, ARGWC-15, ARGWC-16, ARGWC-17, ARGWC-18, ARGWC-8, ARGWA-24

Arsenic (mg/L)
ARAMW-3, ARAMW-6, ARGWA-24

Beryllium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWA-12, ARGWA-13, ARGWA-14, ARGWC-10, ARGWC-15, ARGWA-24

Cadmium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWA-13, ARGWC-10, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9, ARGWA-24

Chromium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-18, ARGWA-24

Lead (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-16, ARGWC-17, ARGWA-24

Lithium (mg/L)
ARAMW-6, ARGWA-24

Mercury (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWA-13, ARGWA-14, ARGWC-17, ARGWC-9, ARGWA-24

Molybdenum (mg/L)
ARGWA-12, ARGWA-5, ARGWC-10, ARGWC-16, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-9, ARGWA-24

Selenium (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWA-24

Silver (mg/L)
ARAMW-3, ARAMW-4, ARAMW-6, ARGWC-8, ARGWA-24

Thallium (mg/L)
ARAMW-3, ARGWA-12, ARGWA-13, ARGWC-10, ARGWC-17, ARGWC-18, ARGWC-7, ARGWC-8, ARGWC-9, ARGWA-24

Appendix I - Interwell Prediction Limits - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 12:39 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-15	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-16	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-17	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-18	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-7	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-8	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-9	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-10	0.24	n/a	2/9/2021	0.031	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-15	0.24	n/a	2/9/2021	0.029	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-16	0.24	n/a	2/9/2021	0.044	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-17	0.24	n/a	2/9/2021	0.051	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-18	0.24	n/a	2/10/2021	0.038	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-7	0.24	n/a	2/10/2021	0.041	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-8	0.24	n/a	2/10/2021	0.049	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-9	0.24	n/a	2/10/2021	0.038	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-10	0.013	n/a	2/9/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-15	0.013	n/a	2/9/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-18	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-7	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-8	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-9	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-10	0.034	n/a	2/9/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-15	0.034	n/a	2/9/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-16	0.034	n/a	2/9/2021	0.0019J	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-17	0.034	n/a	2/9/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-18	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-7	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-8	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-9	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-10	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-15	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-16	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-17	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-18	0.0051	n/a	2/10/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-7	0.0051	n/a	2/10/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-9	0.0051	n/a	2/10/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2

Appendix III - Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**2/10/2021**	**2.4**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**2/10/2021**	**1.3**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
pH (SU)	**ARGWC-16**	**7.02**	**5.58**	**2/11/2021**	**5.23**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-17**	**7.02**	**5.58**	**2/9/2021**	**5.17**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**

Appendix III - Interwell Prediction Limits - All Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-10	0.68	n/a	2/9/2021	0.08ND	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	ARGWC-15	0.68	n/a	2/9/2021	0.08ND	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	ARGWC-16	0.68	n/a	2/9/2021	0.076J	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	ARGWC-17	0.68	n/a	2/9/2021	0.042J	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**2/10/2021**	**2.4**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	ARGWC-7	0.68	n/a	2/10/2021	0.1	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**2/10/2021**	**1.3**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	ARGWC-9	0.68	n/a	2/10/2021	0.06J	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Calcium (mg/L)	ARGWC-10	190	n/a	2/9/2021	7.7	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-15	190	n/a	2/9/2021	23	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-16	190	n/a	2/9/2021	38	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-17	190	n/a	2/9/2021	12	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-18	190	n/a	2/10/2021	52	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-7	190	n/a	2/10/2021	9.9	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-8	190	n/a	2/10/2021	48	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-9	190	n/a	2/10/2021	4.8	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-10	15.1	n/a	2/9/2021	4.7	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-15	15.1	n/a	2/9/2021	2.7	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-16	15.1	n/a	2/9/2021	5.7	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-17	15.1	n/a	2/9/2021	3.1	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-18	15.1	n/a	2/10/2021	7.8	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-7	15.1	n/a	2/10/2021	4.5	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-8	15.1	n/a	2/10/2021	6.4	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-9	15.1	n/a	2/10/2021	5.9	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-10	0.53	n/a	2/9/2021	0.051J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-15	0.53	n/a	2/9/2021	0.094J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-16	0.53	n/a	2/9/2021	0.056J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-17	0.53	n/a	2/9/2021	0.1ND	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-18	0.53	n/a	2/10/2021	0.12	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-7	0.53	n/a	2/10/2021	0.033J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-8	0.53	n/a	2/10/2021	0.17	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-9	0.53	n/a	2/10/2021	0.051J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-10	7.02	5.58	2/9/2021	5.94	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-15	7.02	5.58	2/9/2021	6.43	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	**ARGWC-16**	**7.02**	**5.58**	**2/11/2021**	**5.23**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-17**	**7.02**	**5.58**	**2/9/2021**	**5.17**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**
pH (SU)	ARGWC-18	7.02	5.58	2/11/2021	6.03	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-7	7.02	5.58	2/10/2021	5.77	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-8	7.02	5.58	2/10/2021	6.45	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-9	7.02	5.58	2/11/2021	5.95	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-10	950	n/a	2/9/2021	1.3	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-15	950	n/a	2/9/2021	7.1	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-16	950	n/a	2/9/2021	190	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-17	950	n/a	2/9/2021	73	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-18	950	n/a	2/10/2021	220	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-7	950	n/a	2/10/2021	43	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-8	950	n/a	2/10/2021	60	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-9	950	n/a	2/10/2021	1.7	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-10	1500	n/a	2/9/2021	81	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-15	1500	n/a	2/9/2021	140	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-16	1500	n/a	2/9/2021	310	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-17	1500	n/a	2/9/2021	110	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-18	1500	n/a	2/10/2021	460	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-7	1500	n/a	2/10/2021	110	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-8	1500	n/a	2/10/2021	270	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-9	1500	n/a	2/10/2021	71	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2

Trend Tests - Significant Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/7/2021, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**ARGWA-13 (bg)**	**0.06866**	**50**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-13 (bg)**	**50.16**	**227**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-14 (bg)**	**-21.58**	**-241**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-5 (bg)**	**-0.003419**	**-3.102**	**-2.58**	**Yes**	**51**	**33.33**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-16**	**10.73**	**211**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-17**	**-7.249**	**-147**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-7**	**-6.838**	**-514**	**-191**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-8**	**-4.608**	**-353**	**-139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-9**	**0.07275**	**152**	**131**	**Yes**	**28**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests - All Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/7/2021, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	ARGWA-12 (bg)	0.01001	35	48	No	14	50	n/a	n/a	0.01	NP
Boron (mg/L)	**ARGWA-13 (bg)**	**0.06866**	**50**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	ARGWA-14 (bg)	0.002822	18	48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-24 (bg)	0	NaN	NaN	No	2	100	n/a	n/a	NaN	NP
Boron (mg/L)	ARGWA-3 (bg)	0	11	48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-5 (bg)	0	11	48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-18	0	1	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-8	-0.01158	-21	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-12 (bg)	-0.004939	-9	-53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-13 (bg)	0.006245	12	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-14 (bg)	-0.01263	-7	-53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-24 (bg)	-0.8343	NaN	NaN	No	2	0	n/a	n/a	NaN	NP
pH (SU)	ARGWA-3 (bg)	0.004444	7	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-5 (bg)	0.005103	6	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-16	-0.01273	-14	-63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-17	-0.07606	-53	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	ARGWA-12 (bg)	0.1499	57	139	No	29	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWA-13 (bg)**	**50.16**	**227**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-14 (bg)**	**-21.58**	**-241**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	ARGWA-24 (bg)	5.214	NaN	NaN	No	2	0	n/a	n/a	NaN	NP
Sulfate (mg/L)	ARGWA-3 (bg)	-0.001395	-1.196	-2.58	No	50	34	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWA-5 (bg)**	**-0.003419**	**-3.102**	**-2.58**	**Yes**	**51**	**33.33**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	ARGWC-10	0	59	139	No	29	44.83	n/a	n/a	0.01	NP
Sulfate (mg/L)	ARGWC-15	0.249	104	139	No	29	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWC-16**	**10.73**	**211**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-17**	**-7.249**	**-147**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	ARGWC-18	0.1575	53	139	No	29	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWC-7**	**-6.838**	**-514**	**-191**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-8**	**-4.608**	**-353**	**-139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-9**	**0.07275**	**152**	**131**	**Yes**	**28**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**

Tolerance Limits Summary

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 7/17/2021, 10:32 AM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.002	62	n/a	n/a	96.77	n/a	n/a	0.04158	NP Inter(NDs)
Arsenic (mg/L)	0.005	193	n/a	n/a	80.31	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.24	190	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.0025	72	n/a	n/a	95.83	n/a	n/a	0.02489	NP Inter(NDs)
Cadmium (mg/L)	0.0043	185	n/a	n/a	94.05	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter(normality)
Cobalt (mg/L)	0.0058	77	n/a	n/a	81.82	n/a	n/a	0.01926	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.084	72	0.4077	0.3416	0	None	No	0.05	Inter
Fluoride (mg/L)	0.53	82	n/a	n/a	39.02	n/a	n/a	0.01491	NP Inter(normality)
Lead (mg/L)	0.013	191	n/a	n/a	88.48	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.0099	76	n/a	n/a	46.05	n/a	n/a	0.02028	NP Inter(normality)
Mercury (mg/L)	0.0002	57	n/a	n/a	94.74	n/a	n/a	0.05373	NP Inter(NDs)
Molybdenum (mg/L)	0.015	77	n/a	n/a	90.91	n/a	n/a	0.01926	NP Inter(NDs)
Selenium (mg/L)	0.034	193	n/a	n/a	82.38	n/a	n/a	NaN	NP Inter(NDs)
Silver (mg/L)	0.0051	161	n/a	n/a	93.79	n/a	n/a	0.0002591	NP Inter(NDs)
Thallium (mg/L)	0.001	72	n/a	n/a	90.28	n/a	n/a	0.02489	NP Inter(NDs)

PLANT ARKWRIGHT LF #3 GWPS			
Constituent Name	**MCL**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006	0.002	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.24	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0043	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.0058	0.0058
Combined Radium, Total (pCi/L)	5	1.08	5
Fluoride, Total (mg/L)	4	0.53	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.0099	0.0099
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.015	0.015
Selenium, Total (mg/L)	0.05	0.034	0.05
Silver, Total (mg/L)	n/a	0.0051	0.0051
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

Confidence Interval Summary Table - Significant Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**ARGWC-17**	**0.02692**	**0.01833**	**0.0058**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**ARAMW-4**	**0.01492**	**0.01058**	**0.0099**	**Yes**	**4**	**0**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**ARGWC-8**	**0.04368**	**0.03721**	**0.015**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - All Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.0011	0.0004	0.01	No	16	81.25	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-15	0.001	0.00062	0.01	No	16	87.5	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-16	0.001	0.001	0.01	No	16	81.25	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-17	0.0015	0.00087	0.01	No	16	75	No	0.01	NP (normality)
Arsenic (mg/L)	ARGWC-18	0.0016	0.00066	0.01	No	16	81.25	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-7	0.0015	0.00078	0.01	No	16	87.5	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-8	0.0014	0.00072	0.01	No	16	75	No	0.01	NP (normality)
Arsenic (mg/L)	ARGWC-9	0.0011	0.00051	0.01	No	16	87.5	No	0.01	NP (NDs)
Barium (mg/L)	ARGWC-10	0.03329	0.03016	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-15	0.038	0.028	2	No	16	0	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-16	0.0549	0.04581	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-17	0.05102	0.04343	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-18	0.0393	0.03506	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-7	0.04076	0.03483	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-8	0.04916	0.04312	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-9	0.04838	0.04306	2	No	16	0	No	0.01	Param.
Beryllium (mg/L)	ARGWC-10	0.0025	0.0025	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-15	0.0025	0.0025	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-16	0.0025	0.00027	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-17	0.0025	0.00025	0.004	No	14	50	No	0.01	NP (normality)
Beryllium (mg/L)	ARGWC-18	0.0025	0.00034	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-7	0.0025	0.00041	0.004	No	14	85.71	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-8	0.0025	0.00047	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-9	0.0025	0.00037	0.004	No	14	92.86	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-10	0.005477	0.004356	0.1	No	14	0	x^(1/3)	0.01	Param.
Chromium (mg/L)	ARGWC-15	0.0087	0.0017	0.1	No	14	85.71	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-16	0.002212	0.001645	0.1	No	14	0	No	0.01	Param.
Chromium (mg/L)	ARGWC-17	0.0021	0.0016	0.1	No	14	78.57	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-18	0.002	0.002	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-7	0.003784	0.003016	0.1	No	14	0	No	0.01	Param.
Chromium (mg/L)	ARGWC-8	0.002	0.0017	0.1	No	14	85.71	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-9	0.01034	0.00823	0.1	No	14	0	No	0.01	Param.
Cobalt (mg/L)	ARAMW-3	0.0011	0.00053	0.0058	No	4	0	No	0.0625	NP (normality)
Cobalt (mg/L)	ARAMW-4	0.006388	0.003179	0.0058	No	6	16.67	No	0.01	Param.
Cobalt (mg/L)	ARAMW-6	0.006509	-0.002024	0.0058	No	4	0	No	0.01	Param.
Cobalt (mg/L)	ARGWC-10	0.0025	0.00017	0.0058	No	15	73.33	No	0.01	NP (normality)
Cobalt (mg/L)	ARGWC-15	0.001733	0.0002289	0.0058	No	15	33.33	ln(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-16	0.0025	0.00026	0.0058	No	15	80	No	0.01	NP (NDs)
Cobalt (mg/L)	**ARGWC-17**	**0.02692**	**0.01833**	**0.0058**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	ARGWC-18	0.001538	0.001129	0.0058	No	15	0	No	0.01	Param.
Cobalt (mg/L)	ARGWC-7	0.0025	0.00034	0.0058	No	15	86.67	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-8	0.0025	0.00017	0.0058	No	15	53.33	No	0.01	NP (normality)
Cobalt (mg/L)	ARGWC-9	0.0025	0.00021	0.0058	No	15	80	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	ARGWC-10	0.3028	-0.009268	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-15	0.669	0.309	5	No	14	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-16	0.568	0.0598	5	No	14	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-17	0.6905	0.1331	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-18	0.5647	0.216	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-7	0.4633	0.2104	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-8	0.4065	0.1536	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-9	0.4269	0.1244	5	No	14	0	No	0.01	Param.
Fluoride (mg/L)	ARAMW-3	0.2089	0.003359	4	No	4	25	No	0.01	Param.
Fluoride (mg/L)	ARAMW-4	0.04722	0.02042	4	No	4	25	x^(1/3)	0.01	Param.
Fluoride (mg/L)	ARAMW-6	0.1055	0.03801	4	No	4	0	No	0.01	Param.
Fluoride (mg/L)	ARGWC-10	0.1	0.047	4	No	16	50	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-15	0.12	0.081	4	No	16	25	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-16	0.1	0.033	4	No	16	56.25	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-17	0.1	0.031	4	No	16	68.75	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-18	0.1024	0.07883	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	ARGWC-7	0.1	0.032	4	No	16	68.75	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-8	0.1454	0.1037	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	ARGWC-9	0.2	0.038	4	No	16	56.25	No	0.01	NP (normality)
Lead (mg/L)	ARGWC-10	0.031	0.00013	0.013	No	16	87.5	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-15	0.0016	0.0003	0.013	No	16	81.25	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-16	0.001	0.001	0.013	No	16	100	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-17	0.001	0.001	0.013	No	16	100	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-18	0.001	0.00028	0.013	No	16	81.25	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-7	0.001	0.001	0.013	No	16	100	No	0.01	NP (NDs)

Confidence Interval Summary Table - All Results

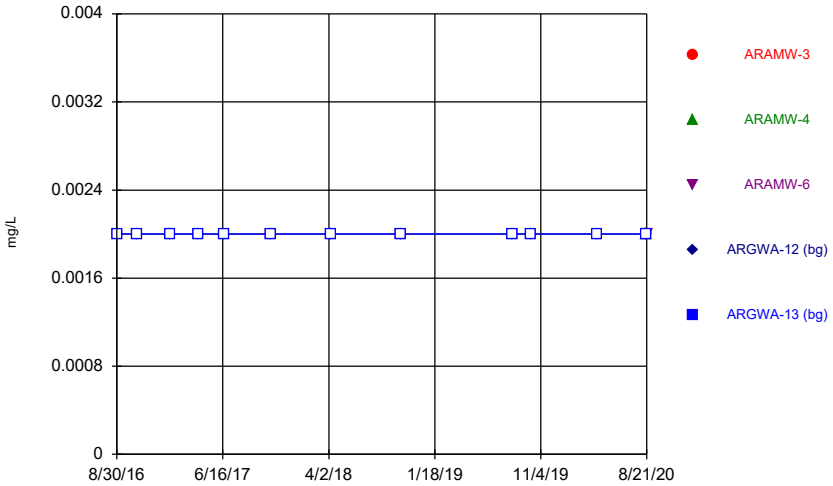
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lead (mg/L)	ARGWC-8	0.001	0.00019	0.013	No	16	93.75	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-9	0.001	0.00016	0.013	No	16	93.75	No	0.01	NP (NDs)
Lithium (mg/L)	ARAMW-3	0.00571	0.00394	0.0099	No	4	25	No	0.01	Param.
Lithium (mg/L)	**ARAMW-4**	**0.01492**	**0.01058**	**0.0099**	**Yes**	**4**	**0**	**No**	**0.01**	**Param.**
Lithium (mg/L)	ARAMW-6	0.005	0.005	0.0099	No	4	100	No	0.0625	NP (NDs)
Lithium (mg/L)	ARGWC-10	0.0055	0.0015	0.0099	No	15	80	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-15	0.005	0.004	0.0099	No	15	66.67	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-16	0.0076	0.0031	0.0099	No	15	80	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-17	0.0071	0.0023	0.0099	No	15	80	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-18	0.005	0.0037	0.0099	No	15	13.33	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-7	0.005	0.0033	0.0099	No	15	46.67	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-8	0.004444	0.002936	0.0099	No	15	40	sqrt(x)	0.01	Param.
Lithium (mg/L)	ARGWC-9	0.0061	0.005	0.0099	No	15	93.33	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-3	0.009181	-0.0001212	0.015	No	5	0	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-4	0.015	0.00073	0.015	No	4	50	No	0.0625	NP (normality)
Molybdenum (mg/L)	ARAMW-6	0.015	0.00065	0.015	No	5	80	No	0.031	NP (NDs)
Molybdenum (mg/L)	ARGWC-10	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-15	0.015	0.00097	0.015	No	15	40	No	0.01	NP (normality)
Molybdenum (mg/L)	ARGWC-16	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-17	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-18	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-7	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	**ARGWC-8**	**0.04368**	**0.03721**	**0.015**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	ARGWC-9	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-10	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-15	0.005	0.0005	0.05	No	16	81.25	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-16	0.002284	0.001094	0.05	No	16	6.25	sqrt(x)	0.01	Param.
Selenium (mg/L)	ARGWC-17	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-18	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-7	0.005	0.00029	0.05	No	16	93.75	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-8	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-9	0.005	0.00029	0.05	No	16	87.5	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-10	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-15	0.001	0.00037	0.0051	No	11	81.82	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-16	0.001	0.001	0.0051	No	11	90.91	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-17	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-18	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-7	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-8	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-9	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	ARGWC-10	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-15	0.001	0.000095	0.002	No	14	92.86	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-16	0.001	0.00027	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-17	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-18	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-7	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-8	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-9	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)

FIGURE A.

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

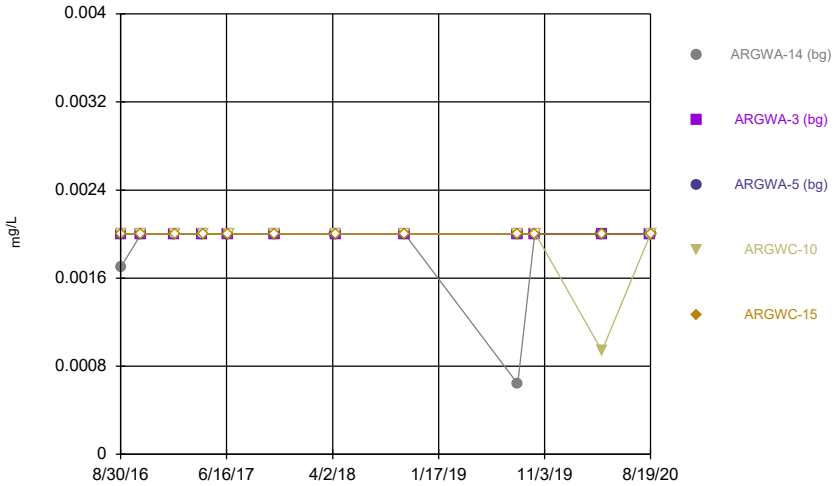
Time Series



Constituent: Antimony Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

Time Series



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Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
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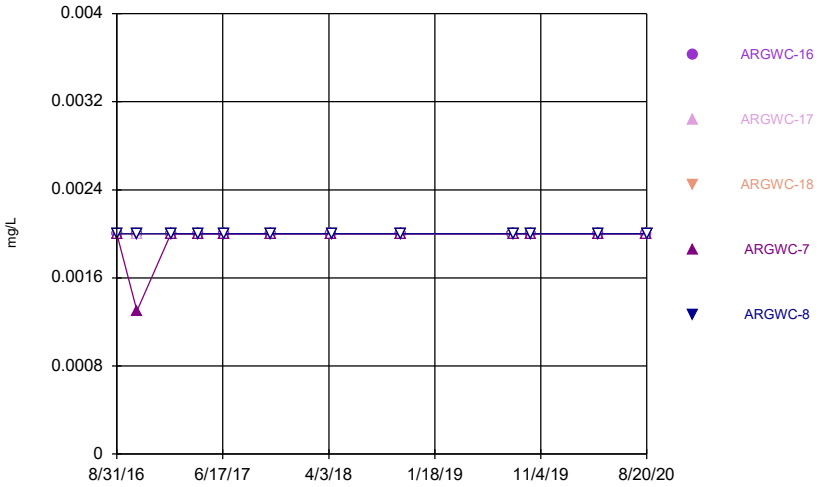

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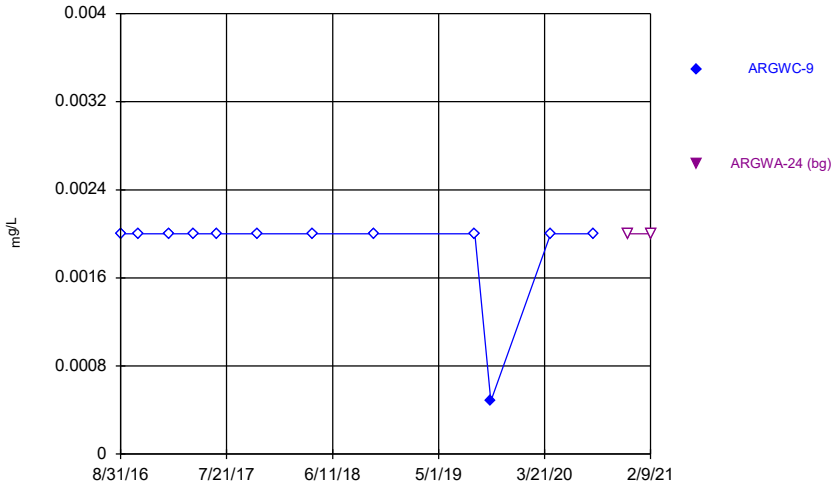
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
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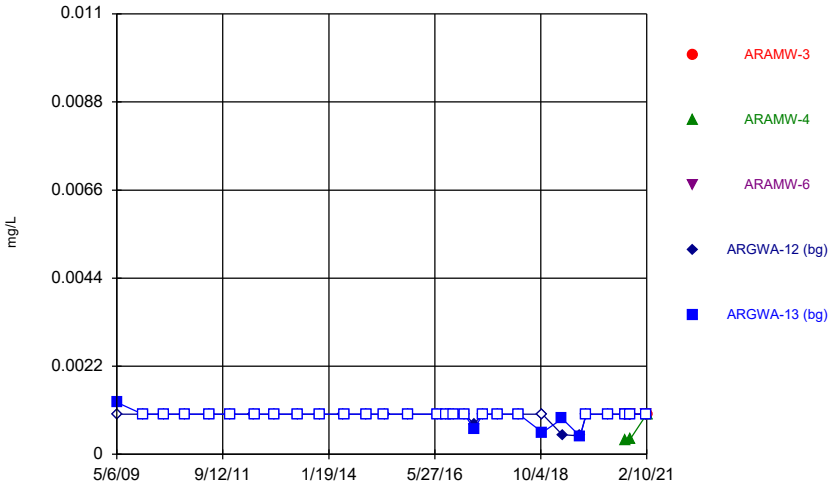
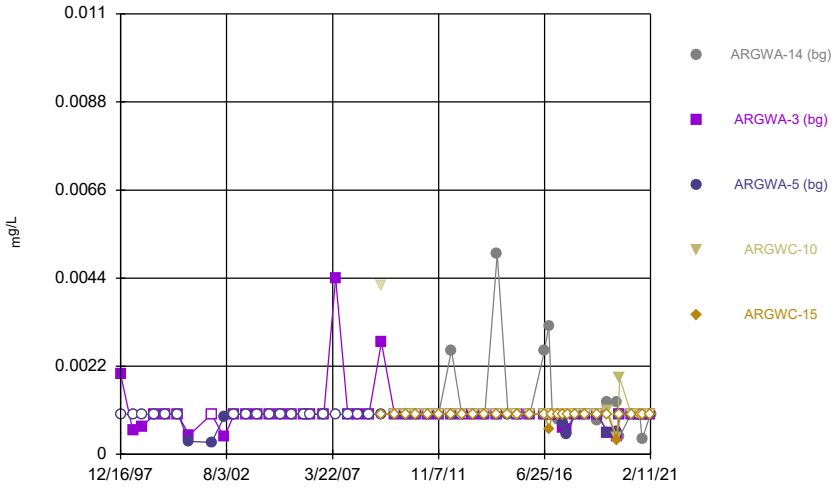
Time Series



Constituent: Arsenic Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
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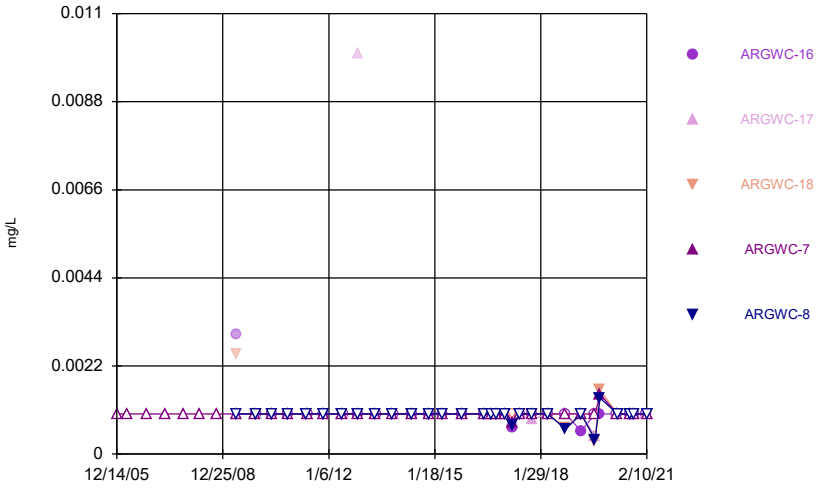
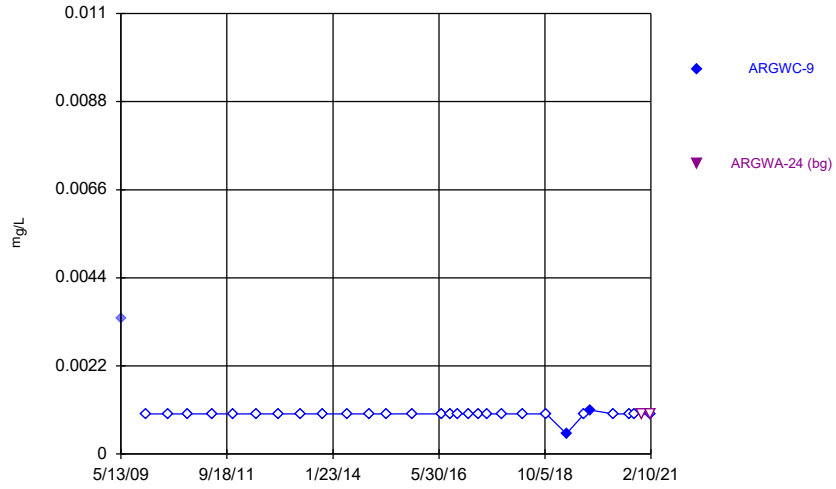
Time Series



Constituent: Arsenic Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

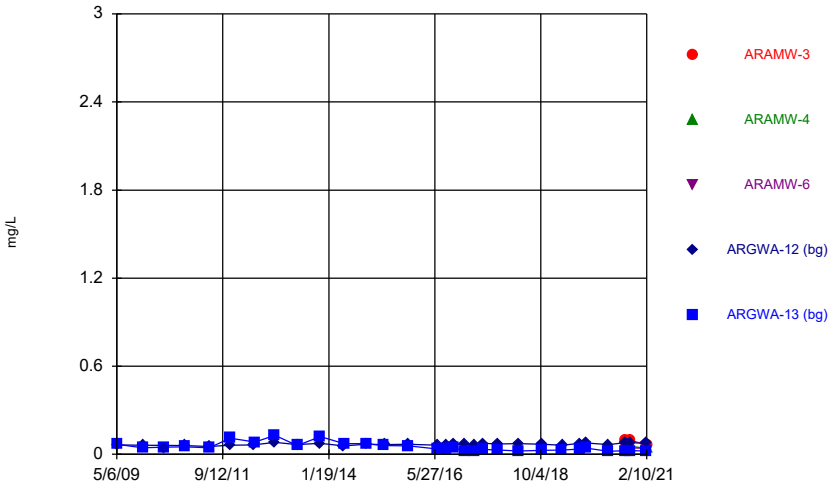
Time Series



Constituent: Arsenic Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series



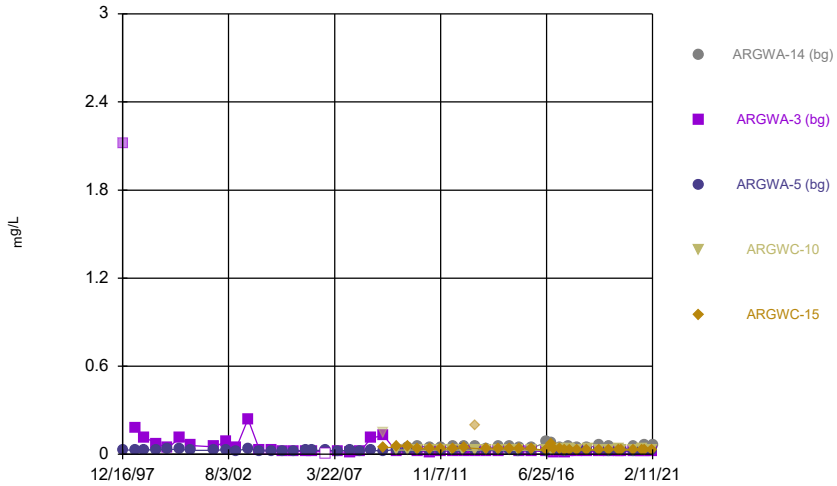
Constituent: Barium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Hollow symbols indicate censored values.

Time Series

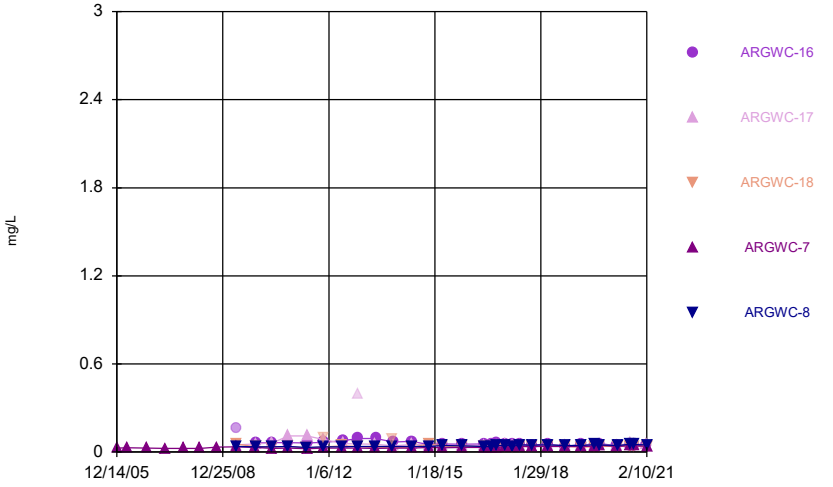


Constituent: Barium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

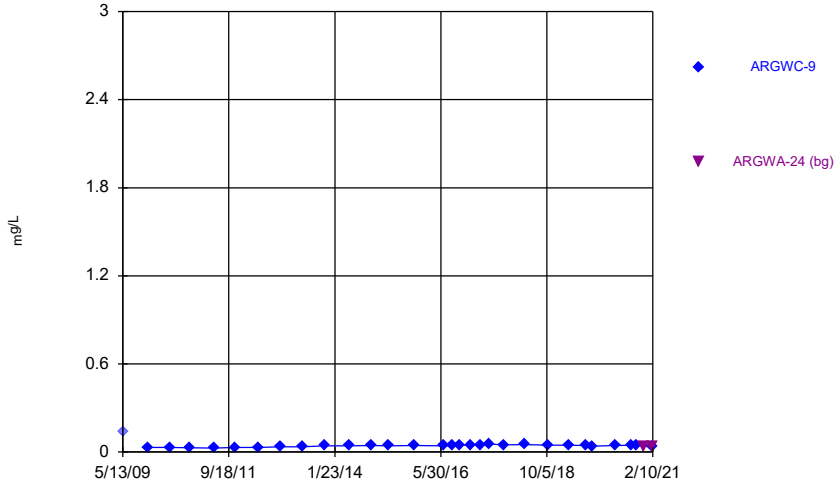


Constituent: Barium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

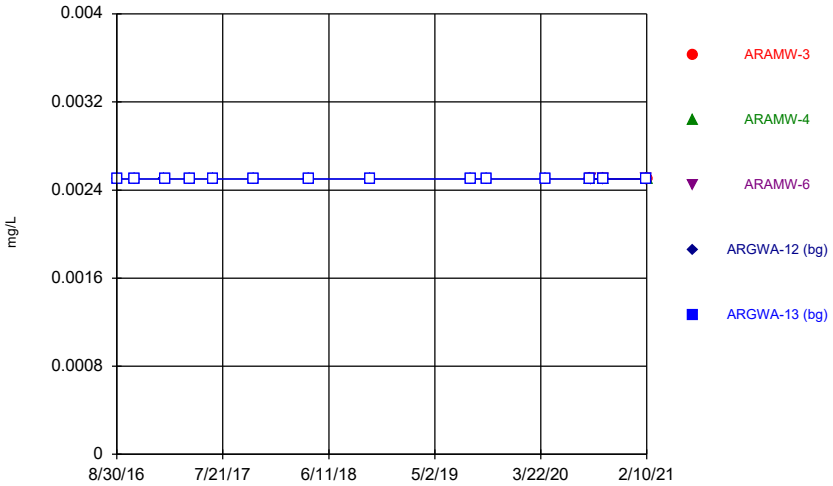


Constituent: Barium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

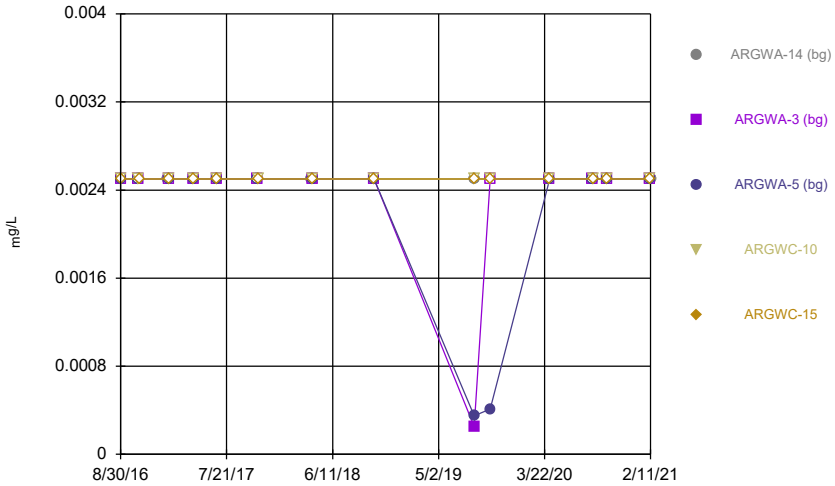
Time Series



Constituent: Beryllium Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

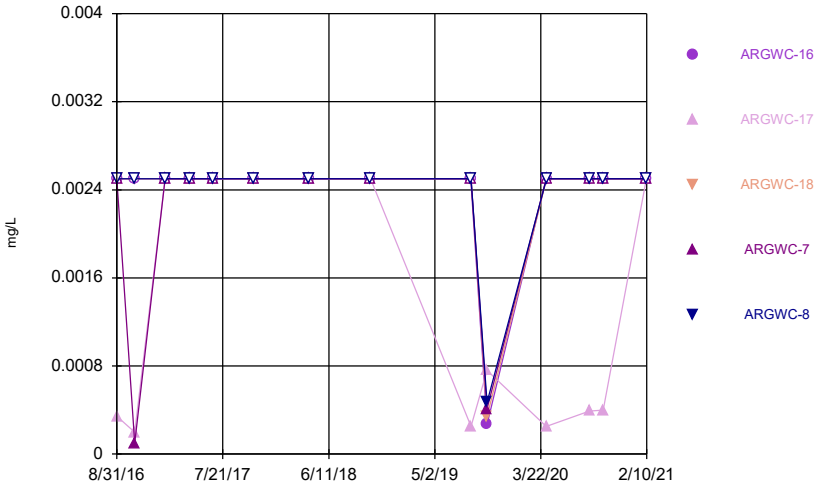
Time Series



Constituent: Beryllium Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

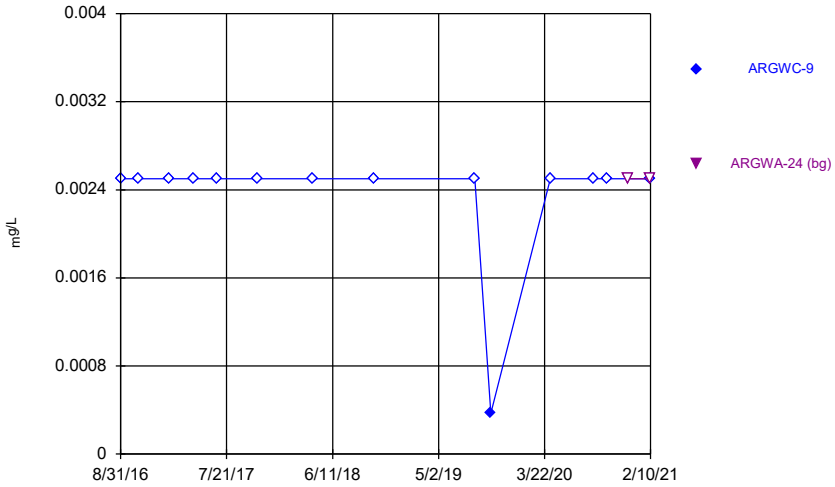
Time Series



Constituent: Beryllium Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

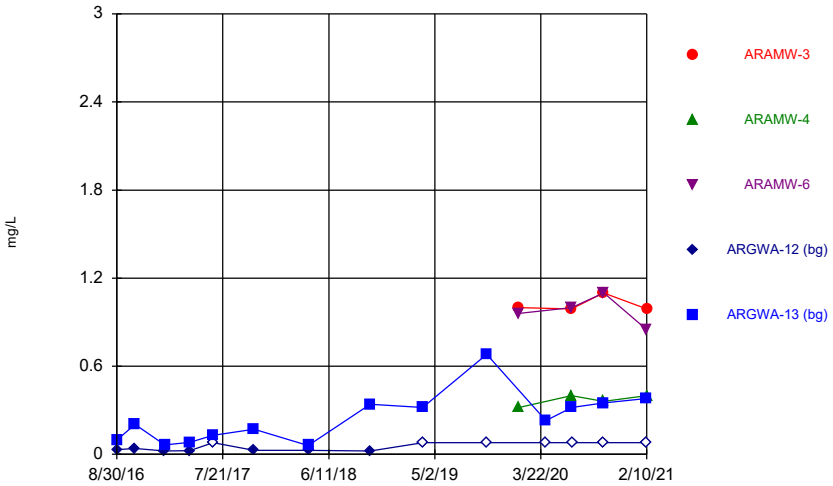
Time Series



Constituent: Beryllium Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

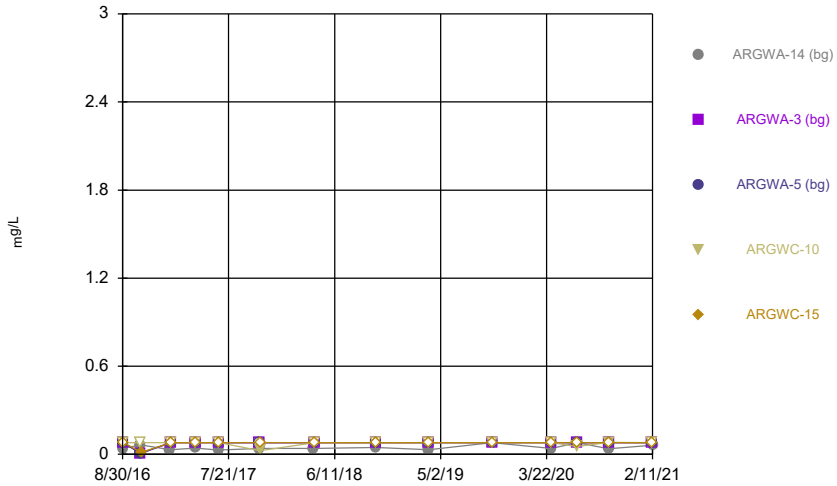
Time Series



Constituent: Boron Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

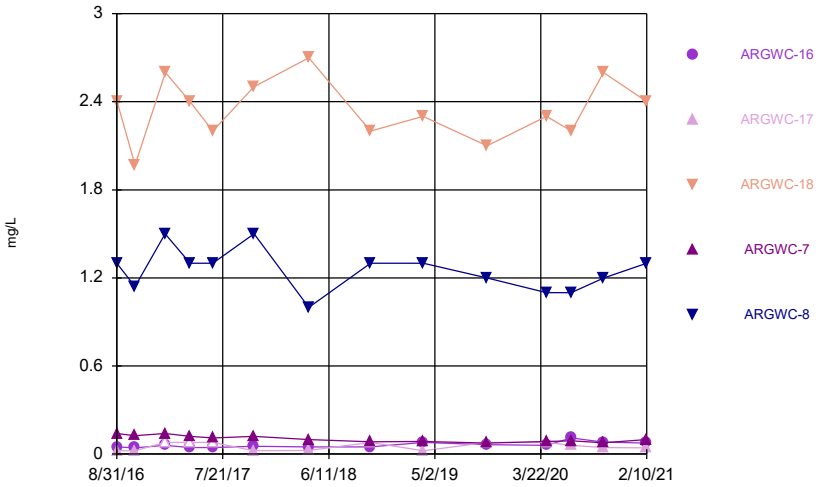
Time Series



Constituent: Boron Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

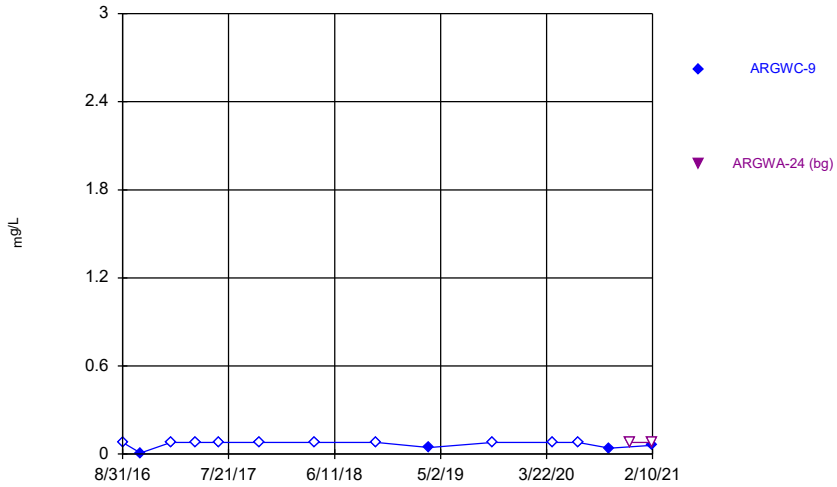
Time Series



Constituent: Boron Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

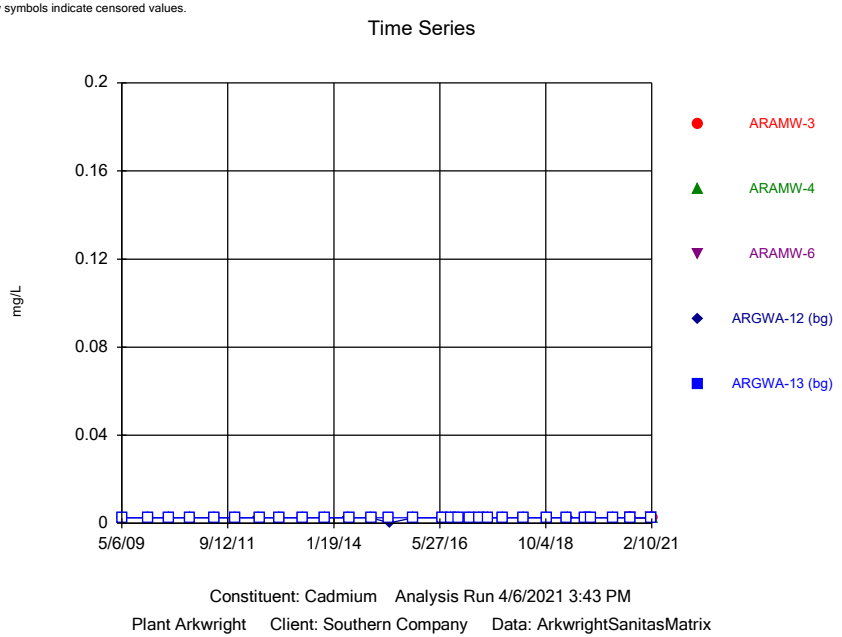
Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

Time Series



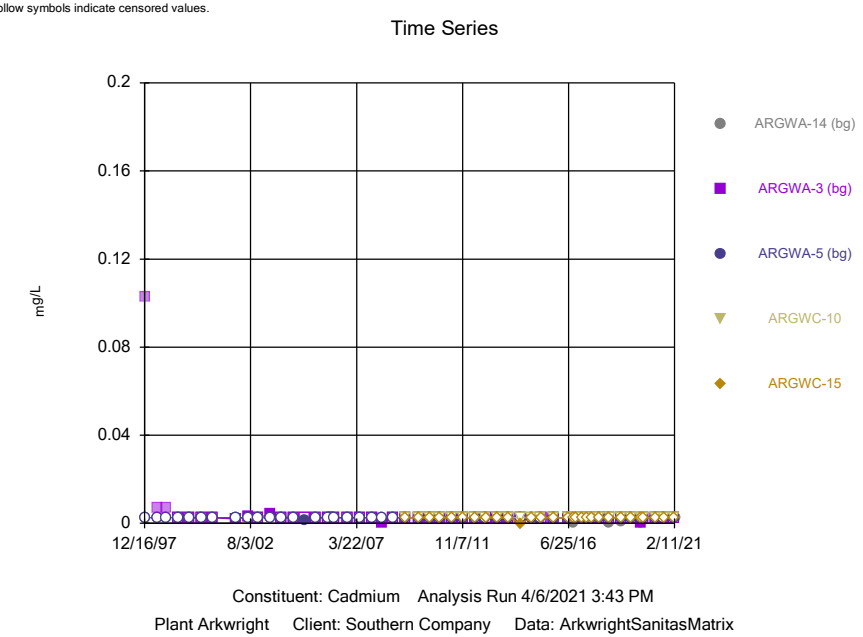
Constituent: Boron Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



Constituent: Cadmium Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



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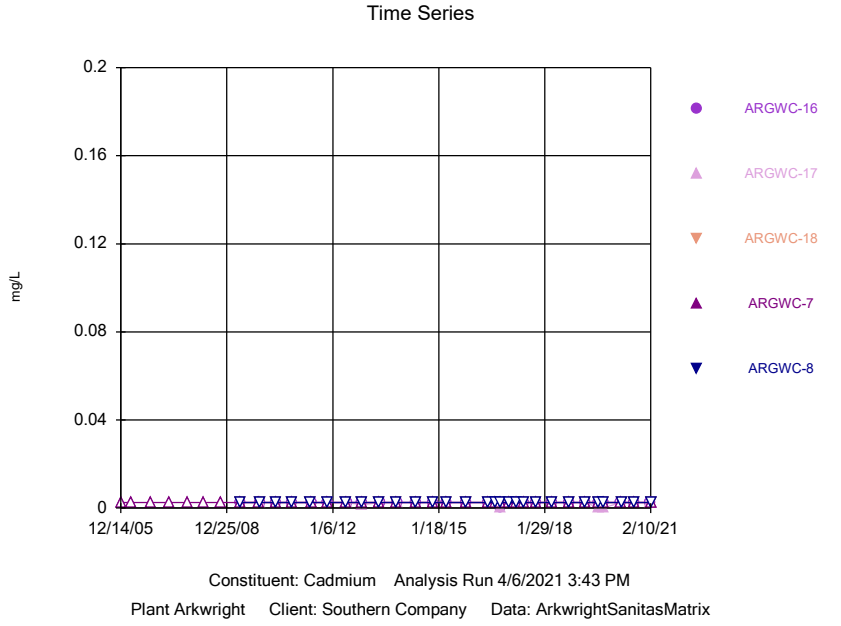
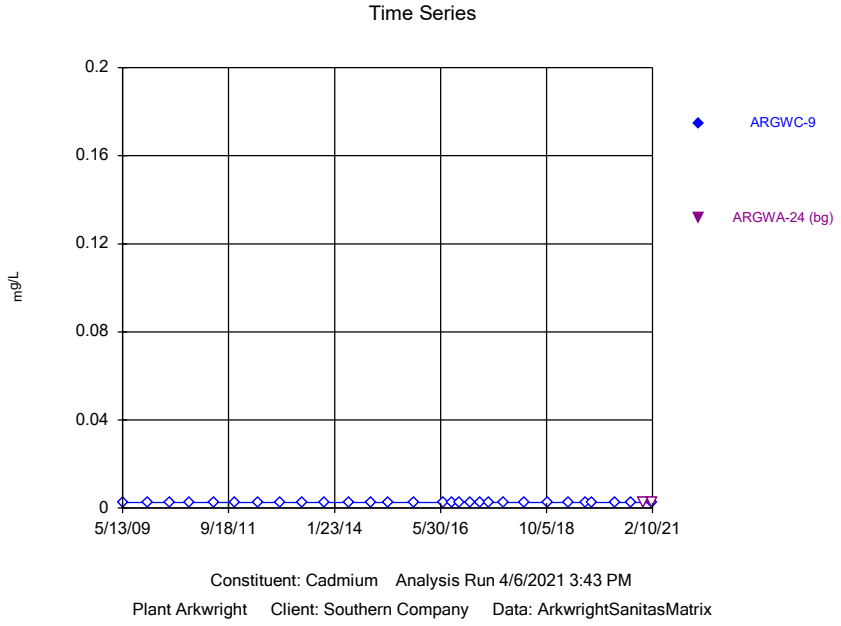
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



Constituent: Cadmium Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

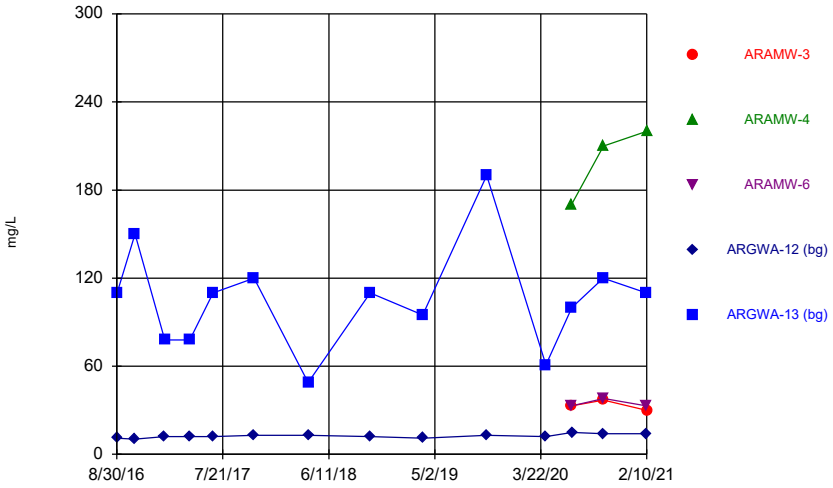
Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



Constituent: Cadmium Analysis Run 4/6/2021 3:43 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

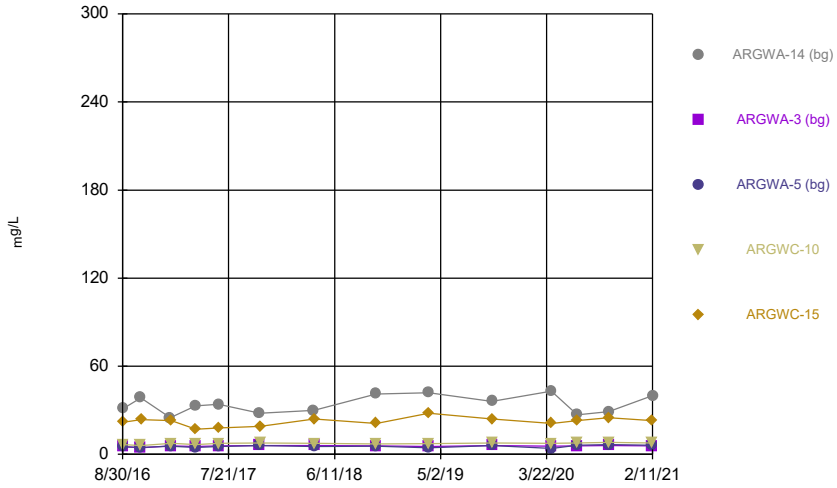


Constituent: Calcium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

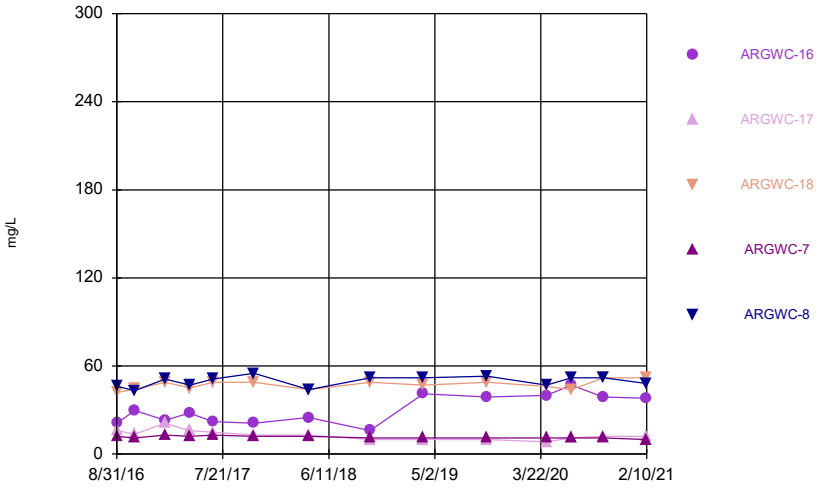


Constituent: Calcium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

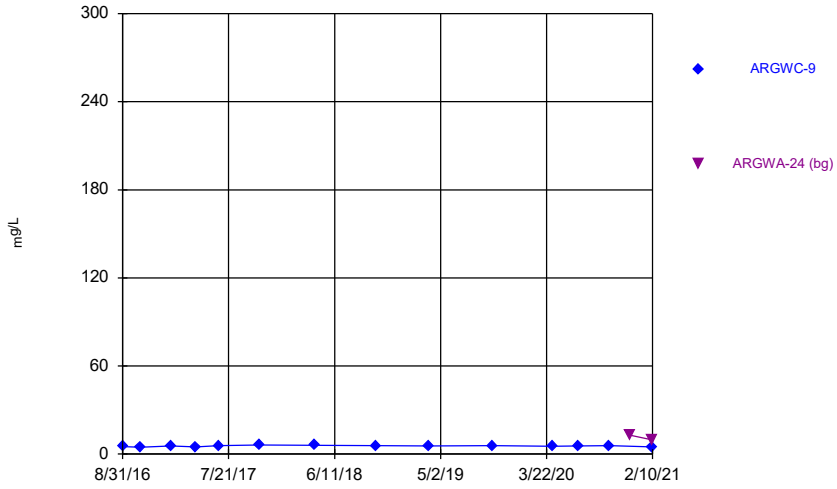


Constituent: Calcium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

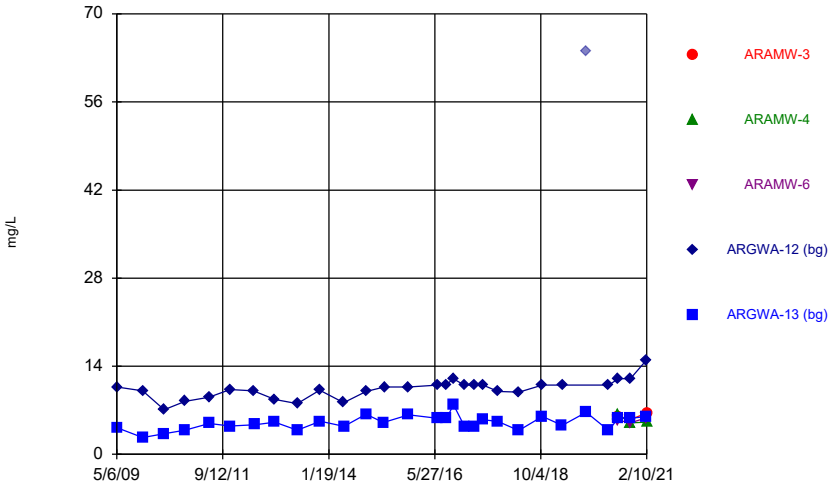


Constituent: Calcium Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series



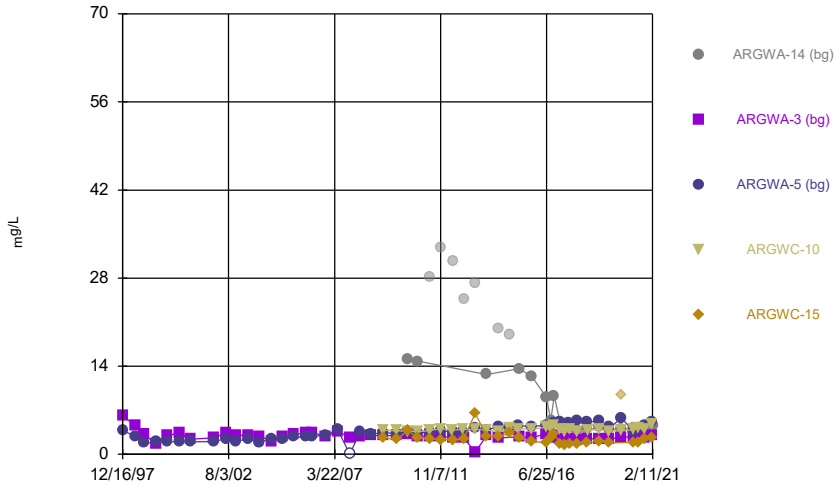
Constituent: Chloride Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Hollow symbols indicate censored values.

Time Series



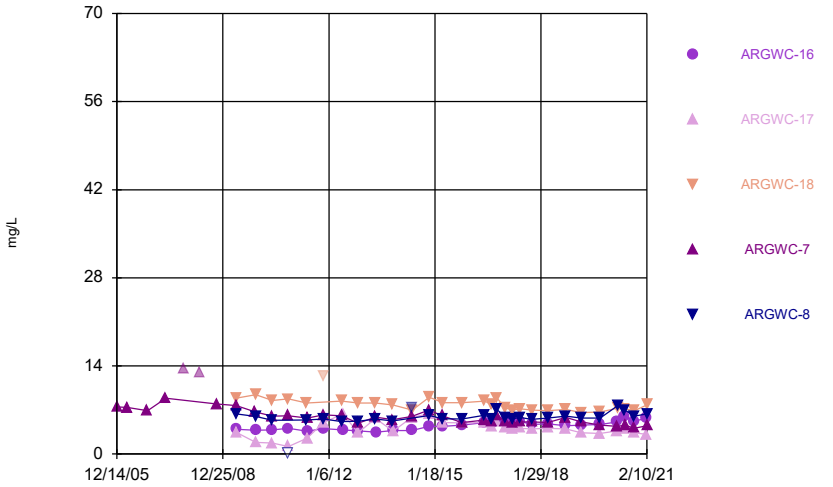
Constituent: Chloride Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Hollow symbols indicate censored values.

Time Series

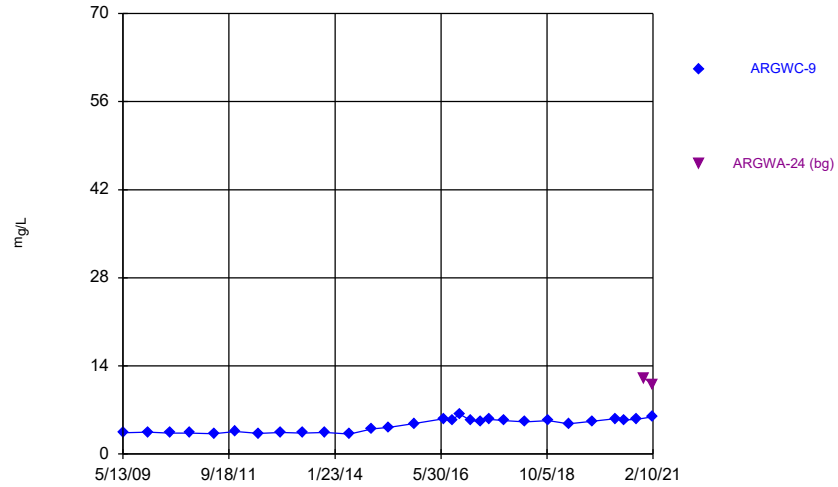


Constituent: Chloride Analysis Run 4/6/2021 3:43 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

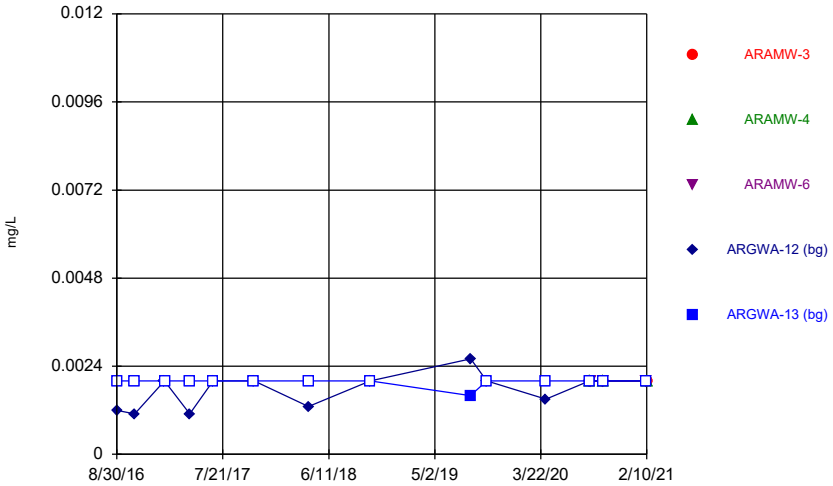


Constituent: Chloride Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

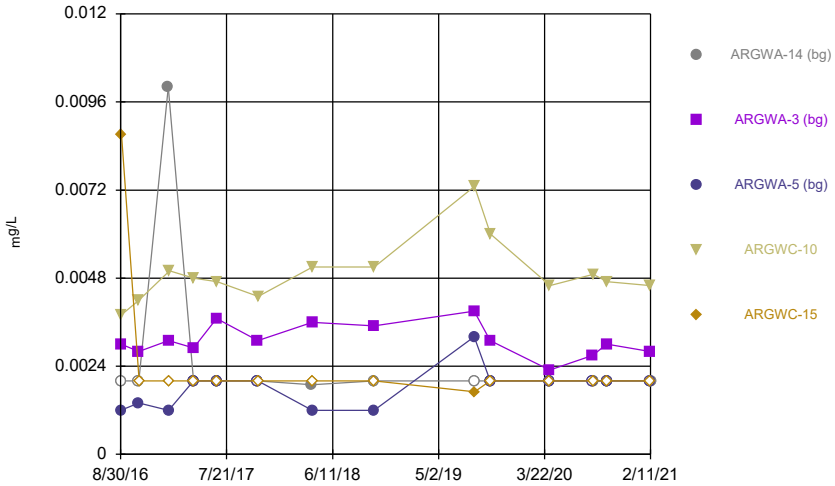
Time Series



Constituent: Chromium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

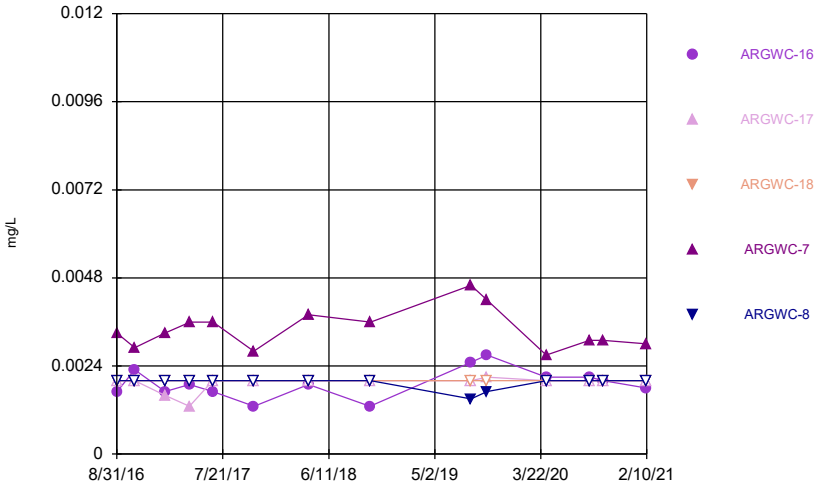
Time Series



Constituent: Chromium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

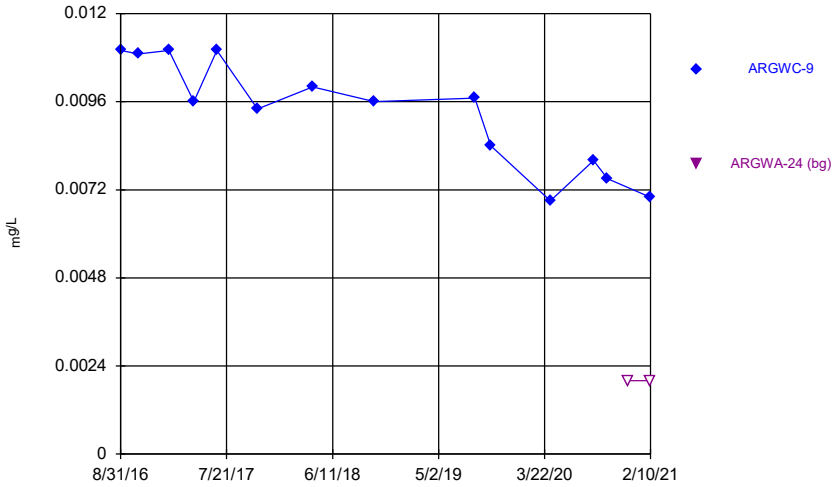
Time Series



Constituent: Chromium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

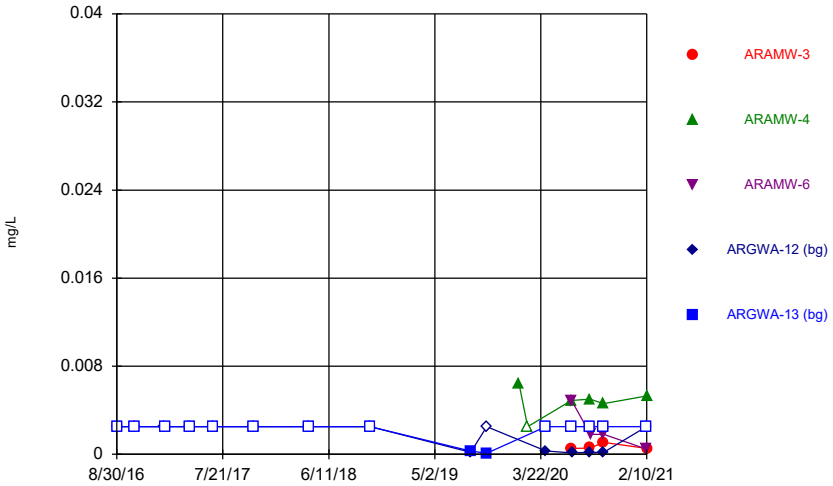
Time Series



Constituent: Chromium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

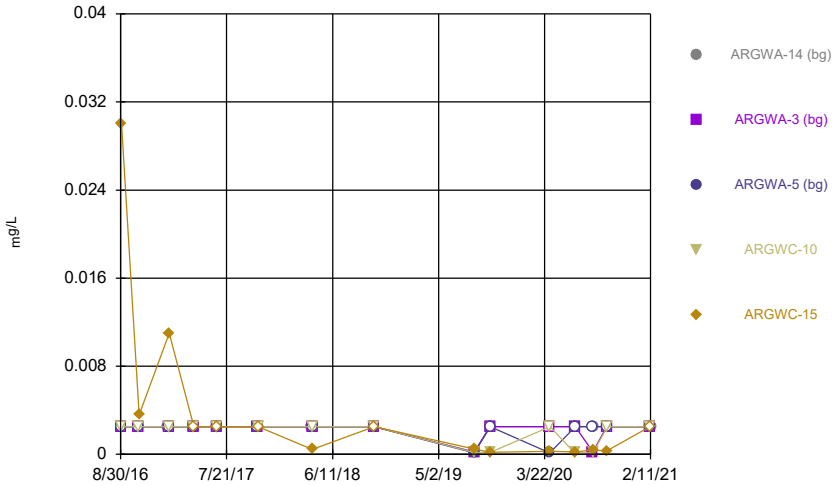
Time Series



Constituent: Cobalt Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

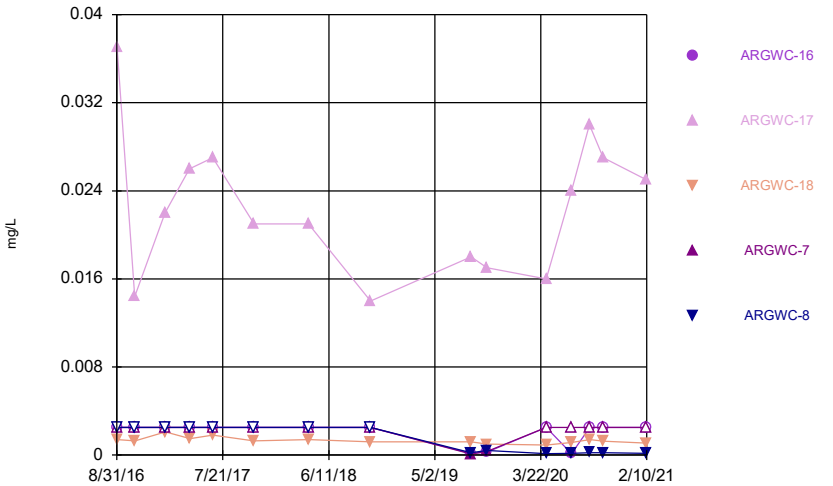
Time Series



Constituent: Cobalt Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

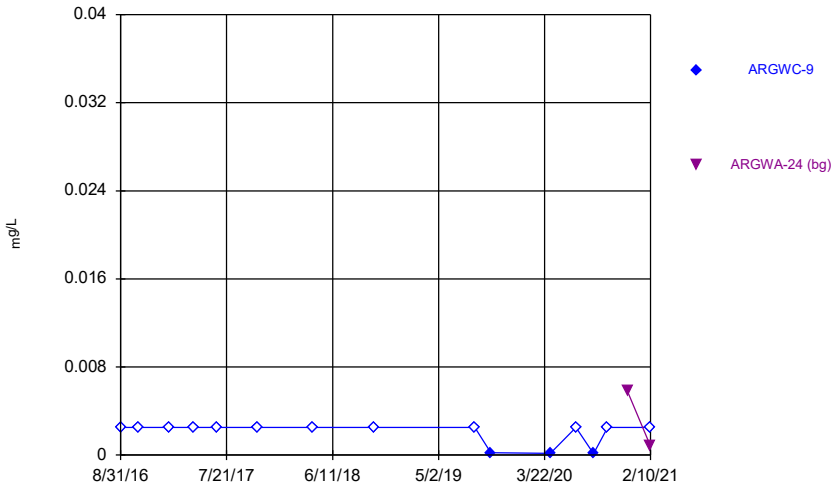
Time Series



Constituent: Cobalt Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

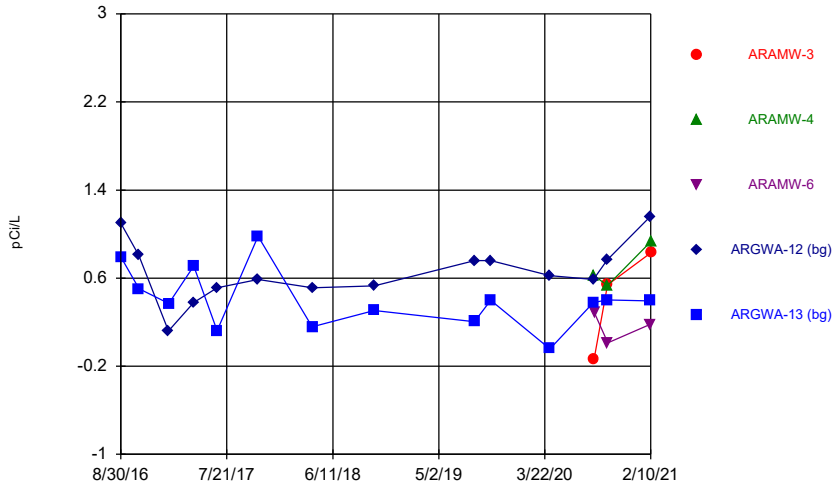
Time Series



Constituent: Cobalt Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

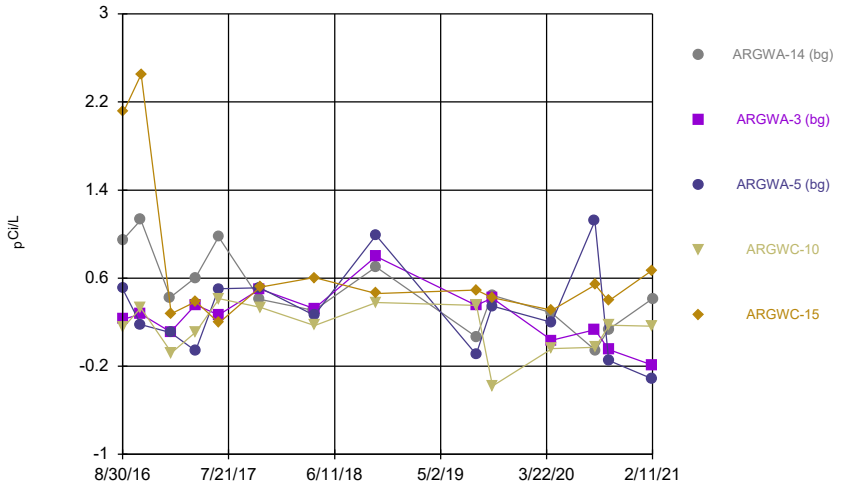
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

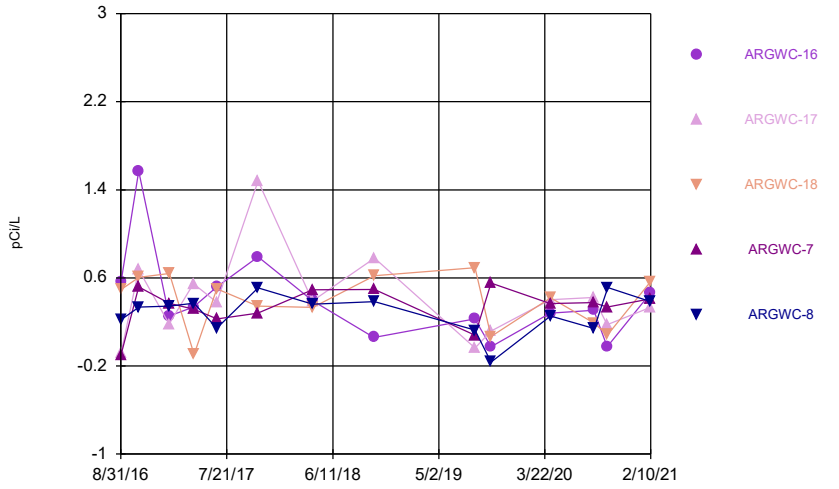
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

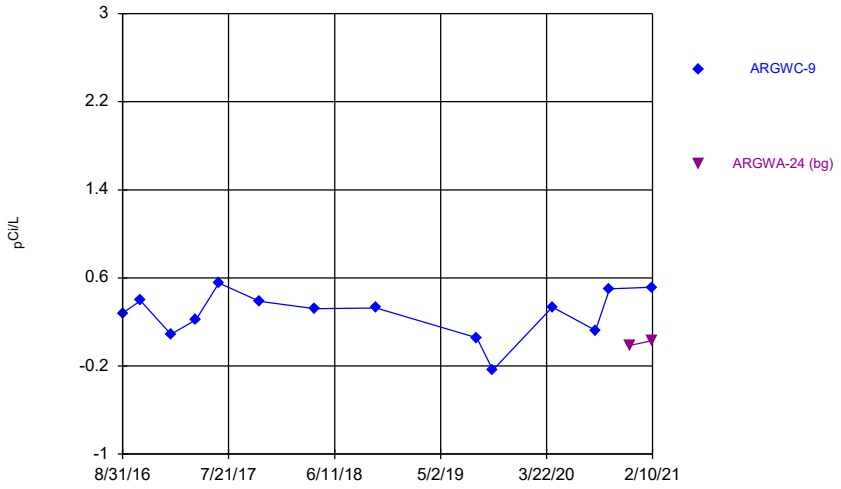
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

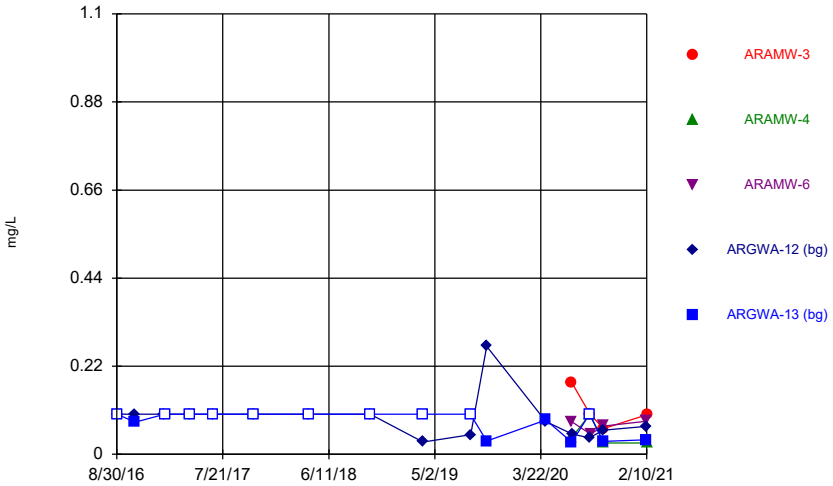
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

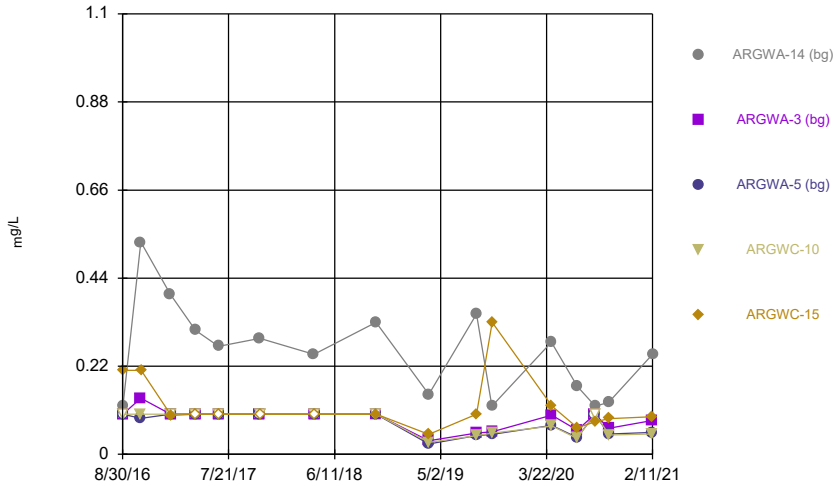
Time Series



Constituent: Fluoride Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

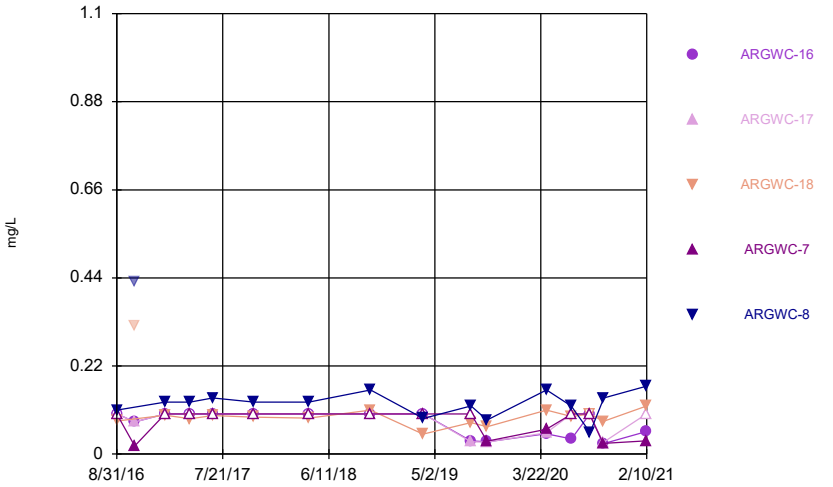
Time Series



Constituent: Fluoride Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

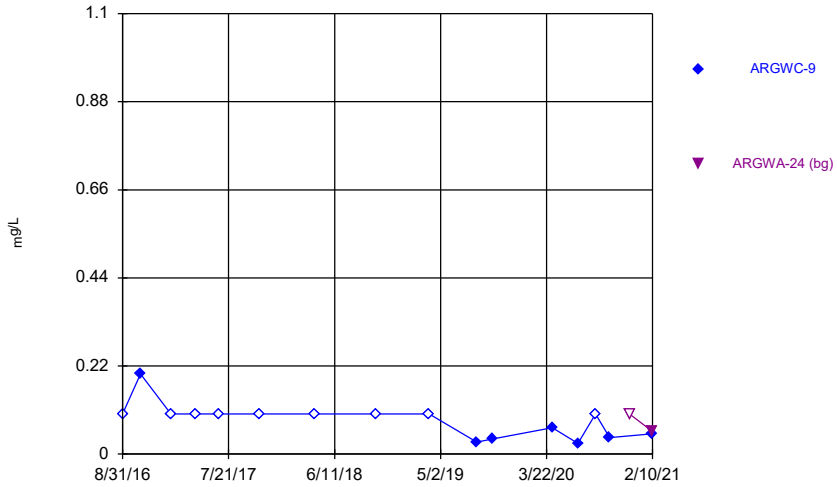
Time Series



Constituent: Fluoride Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

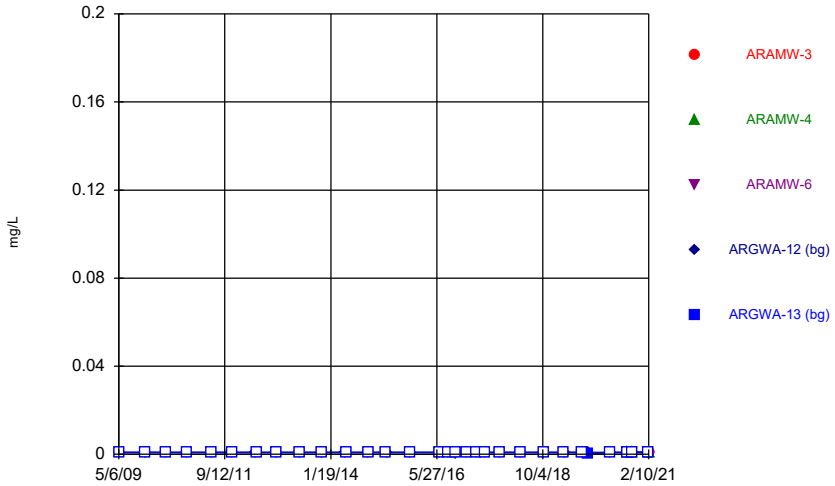
Time Series



Constituent: Fluoride Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

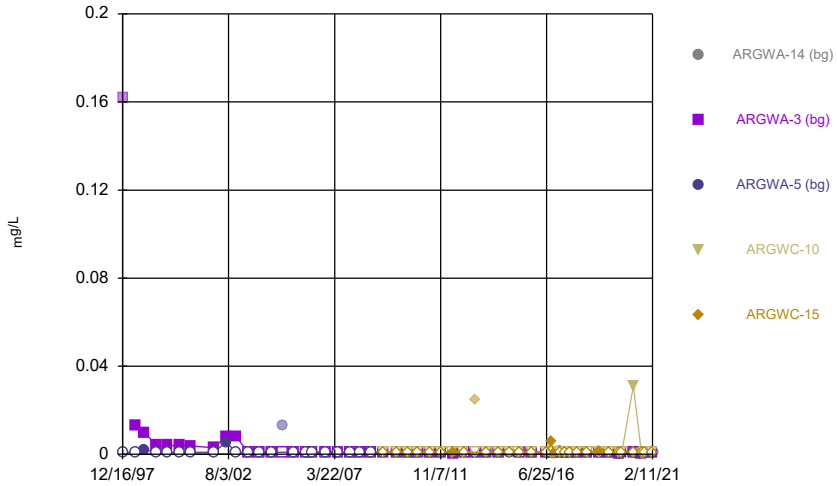
Time Series



Constituent: Lead Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

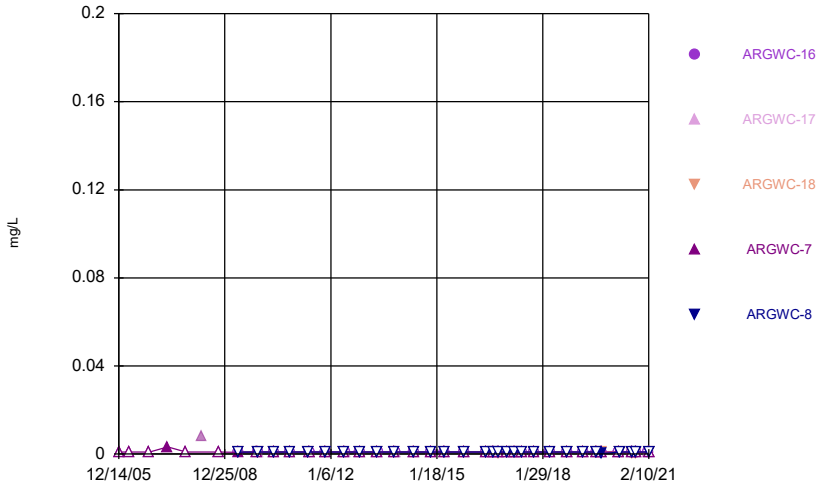
Time Series



Constituent: Lead Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

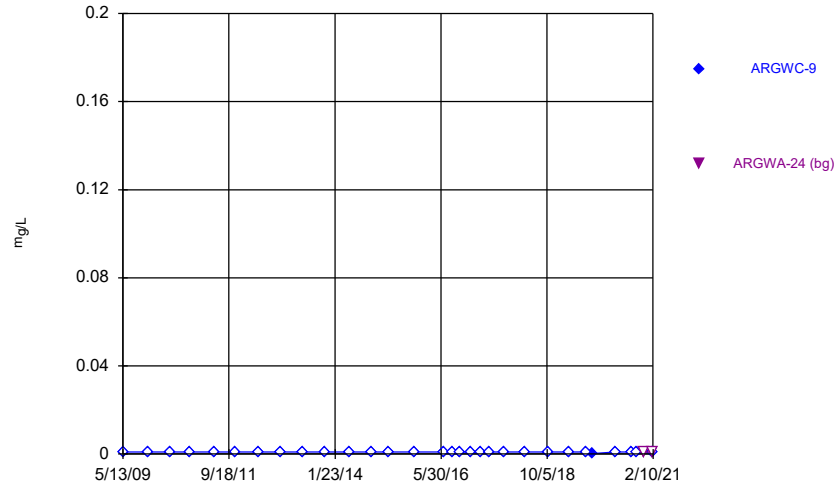
Time Series



Constituent: Lead Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

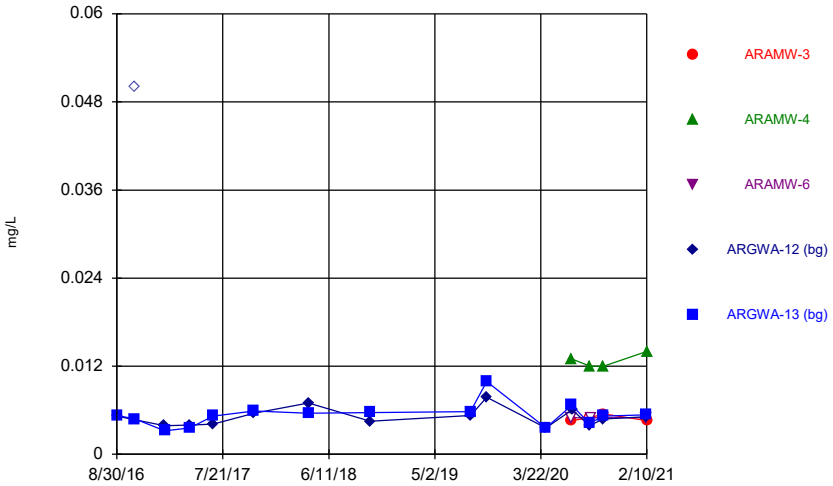
Time Series



Constituent: Lead Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

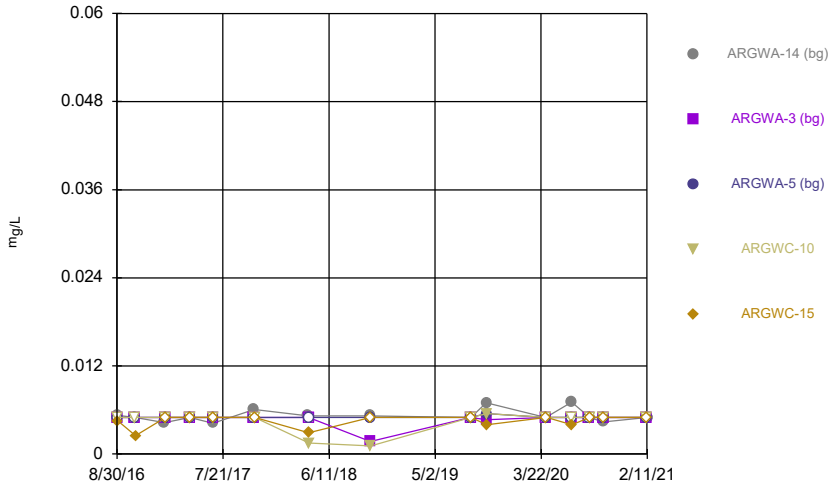
Time Series



Constituent: Lithium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

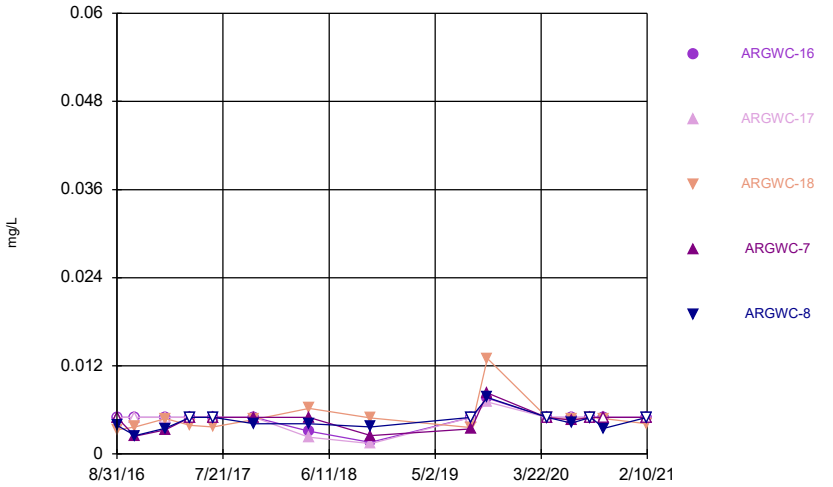
Time Series



Constituent: Lithium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

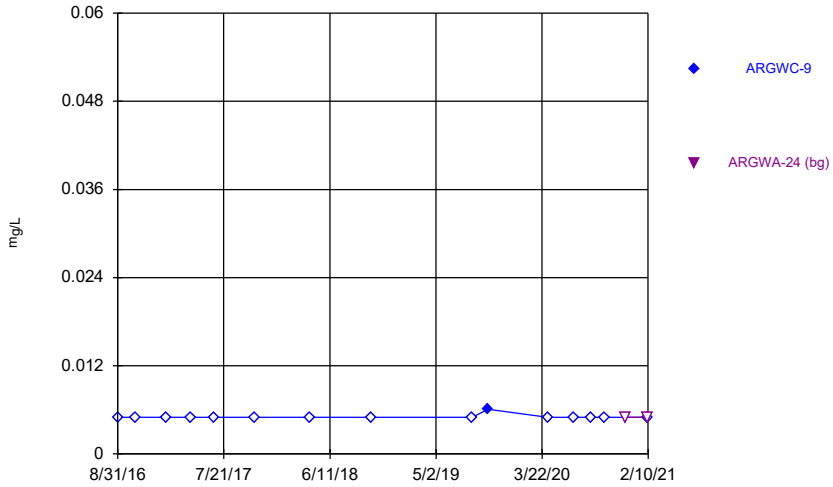
Time Series



Constituent: Lithium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

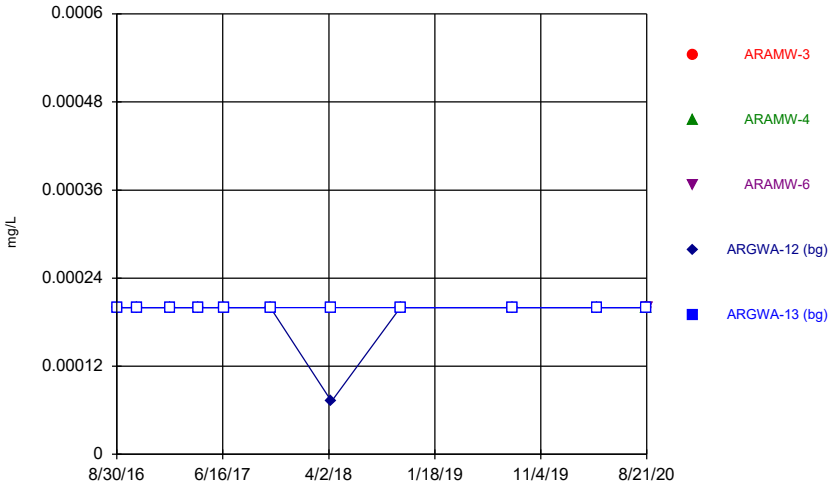
Time Series



Constituent: Lithium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

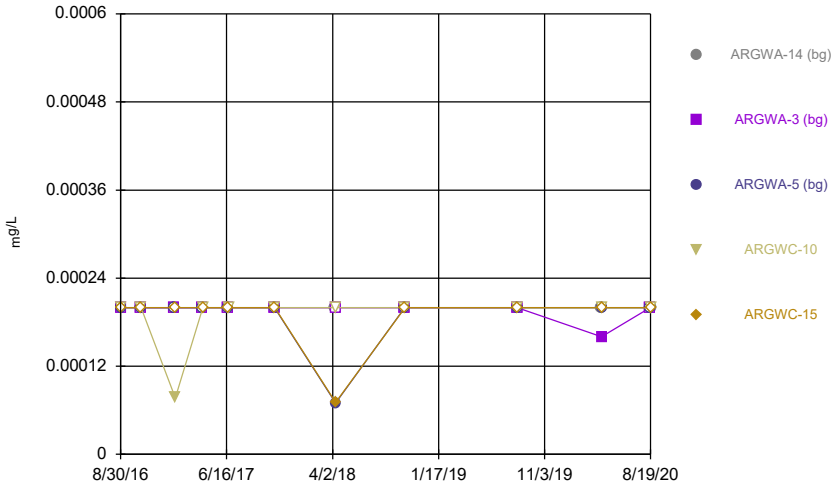
Time Series



Constituent: Mercury Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

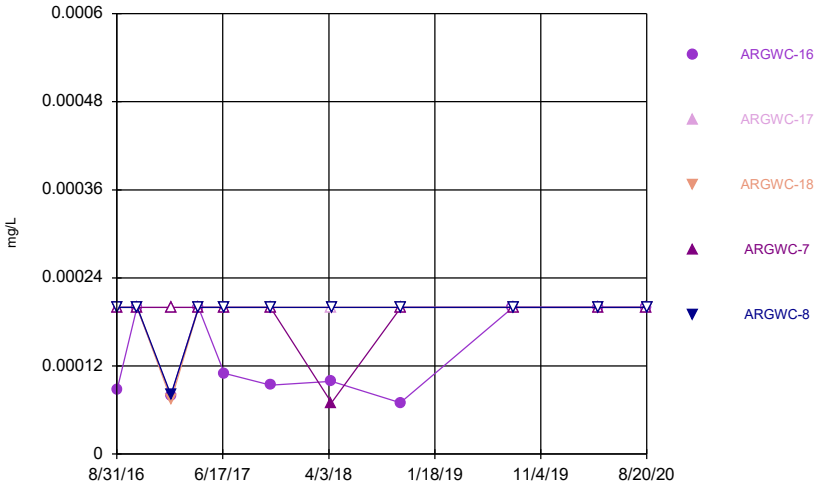
Time Series



Constituent: Mercury Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

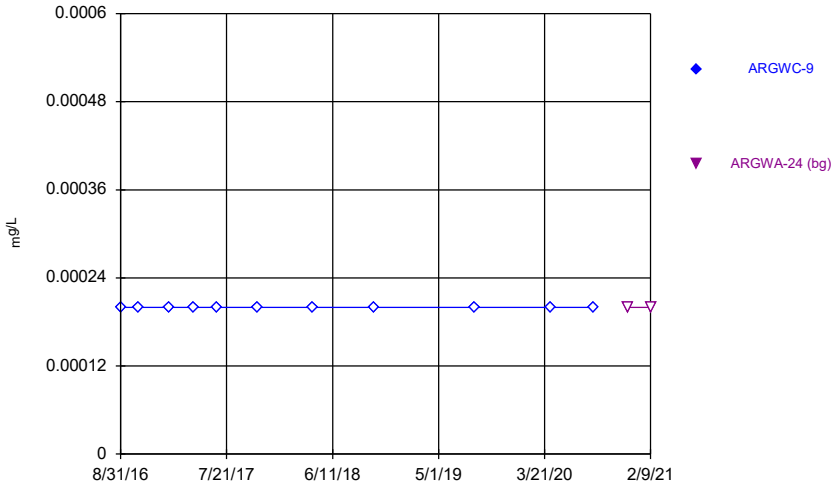
Time Series



Constituent: Mercury Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

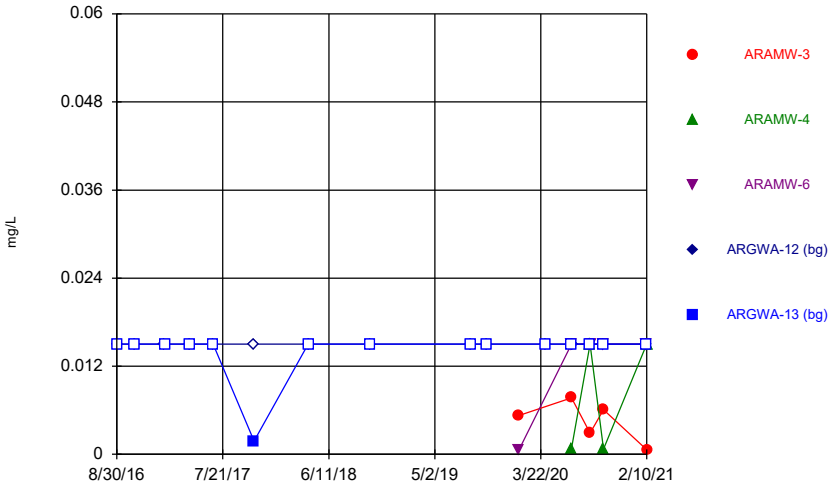
Time Series



Constituent: Mercury Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

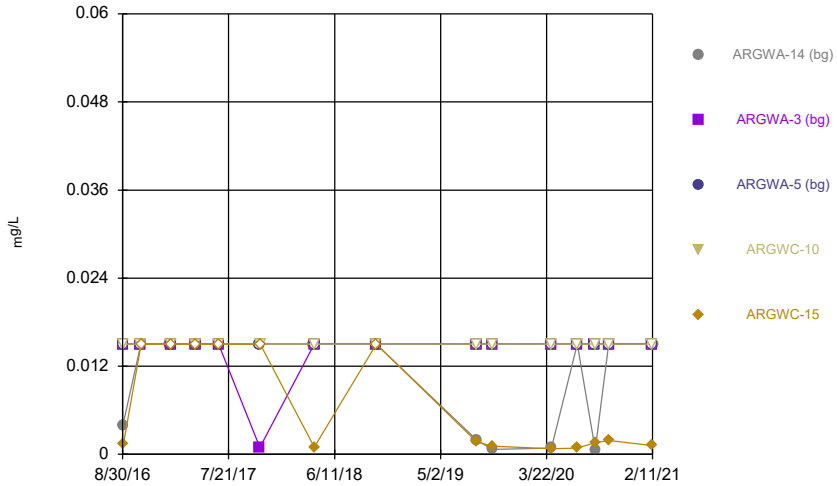
Time Series



Constituent: Molybdenum Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

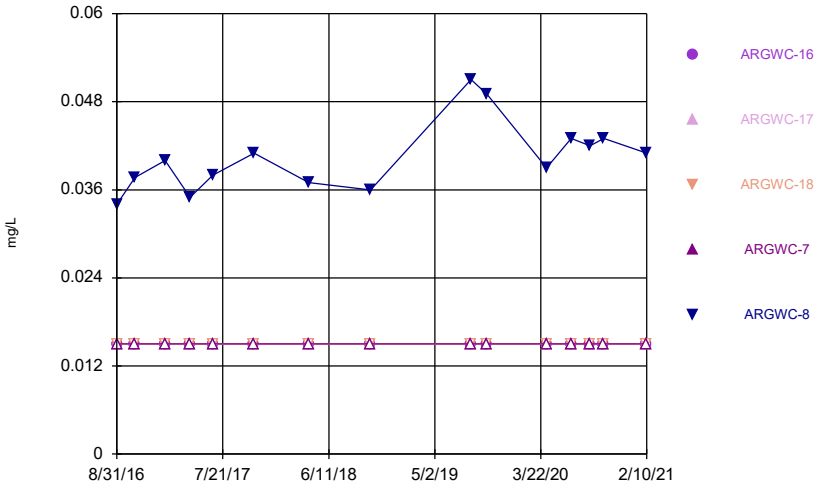
Time Series



Constituent: Molybdenum Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

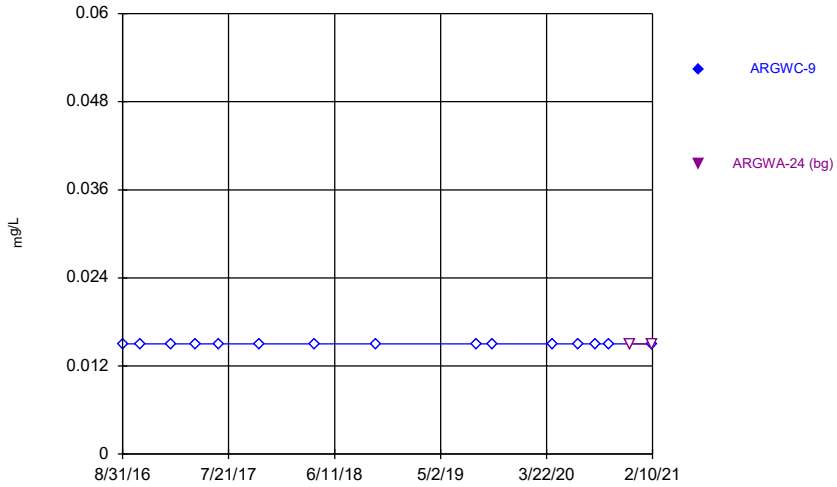
Time Series



Constituent: Molybdenum Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

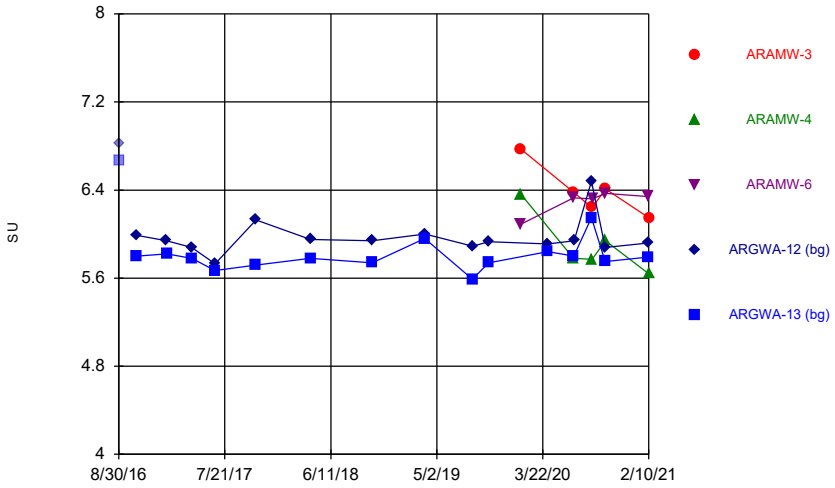
Time Series



Constituent: Molybdenum Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

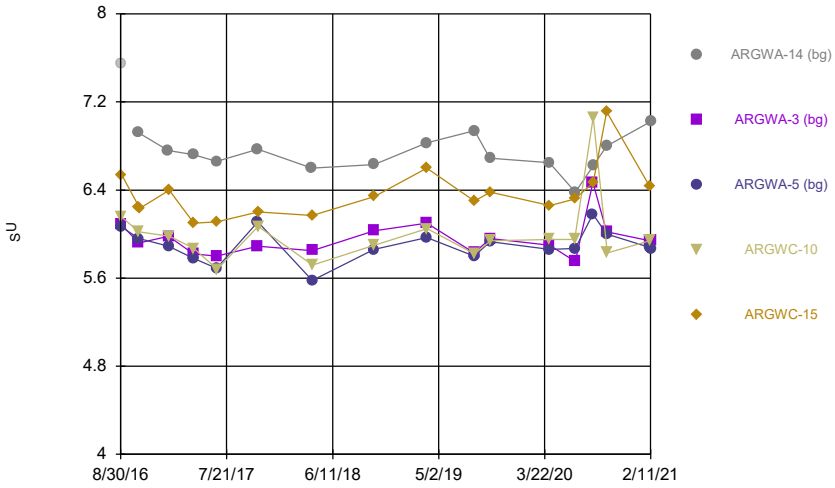


Constituent: pH Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

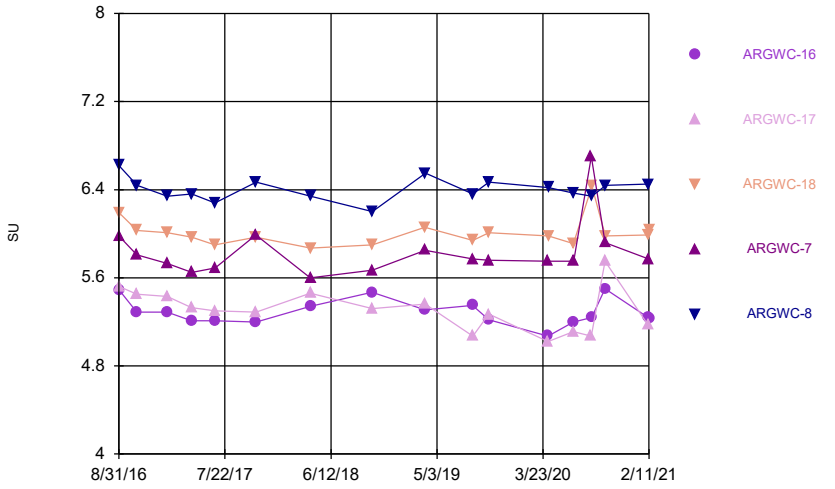


Constituent: pH Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

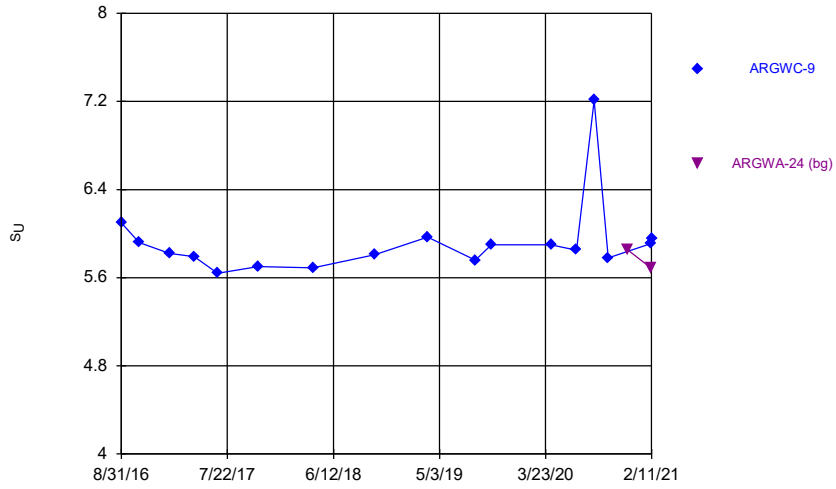


Constituent: pH Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series

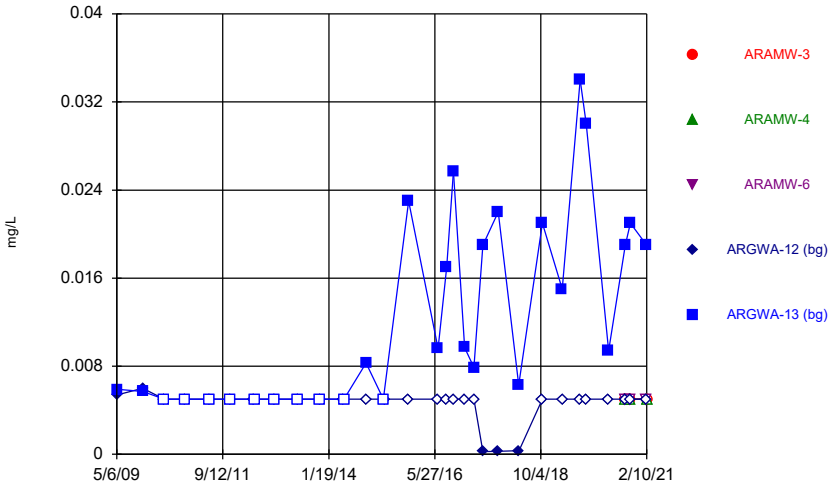


Constituent: pH Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

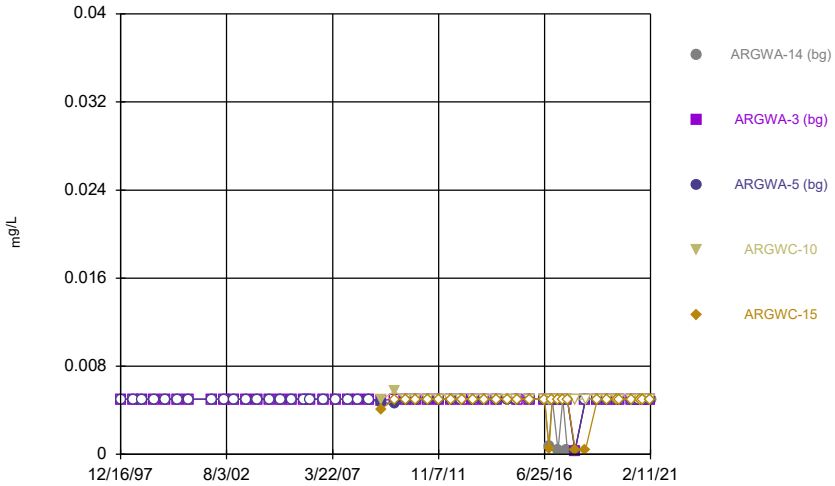
Time Series



Constituent: Selenium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

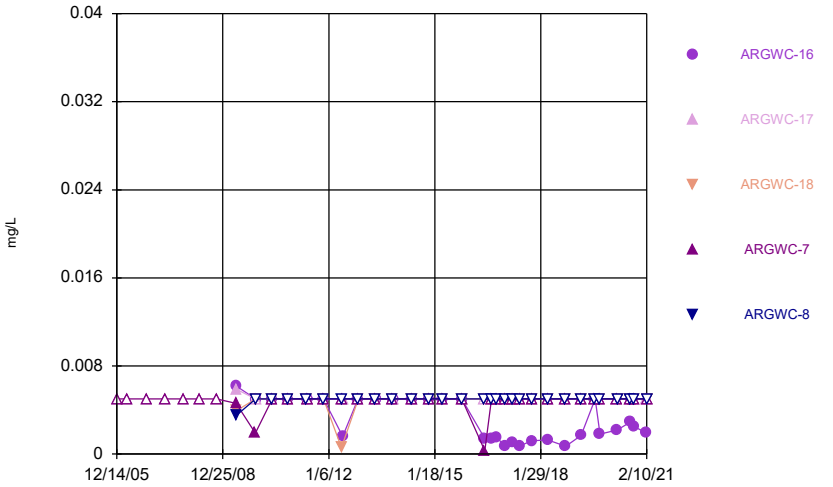
Time Series



Constituent: Selenium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

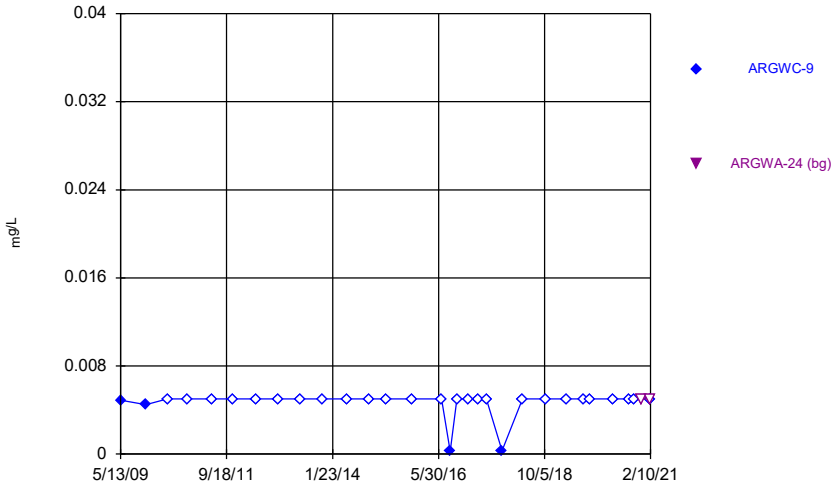
Time Series



Constituent: Selenium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

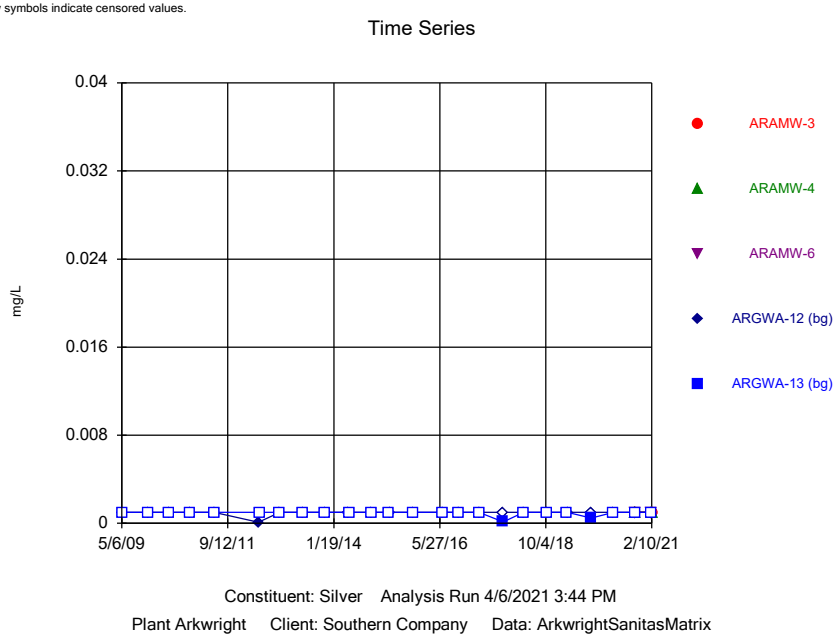
Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

Time Series



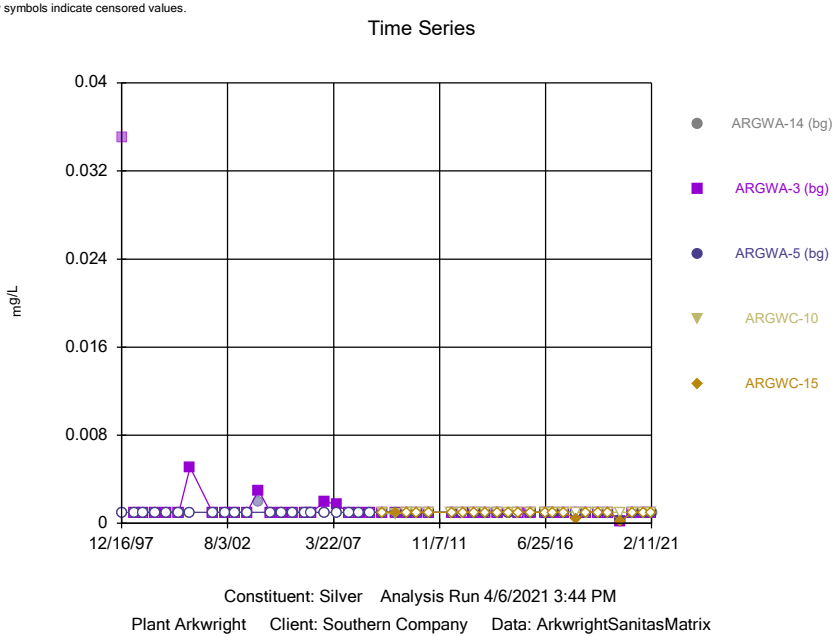
Constituent: Selenium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



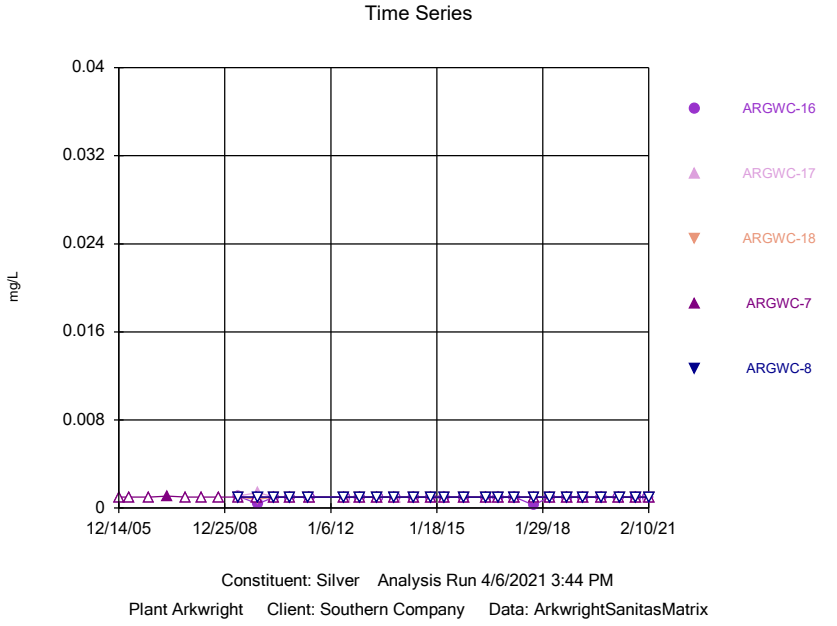
Constituent: Silver Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



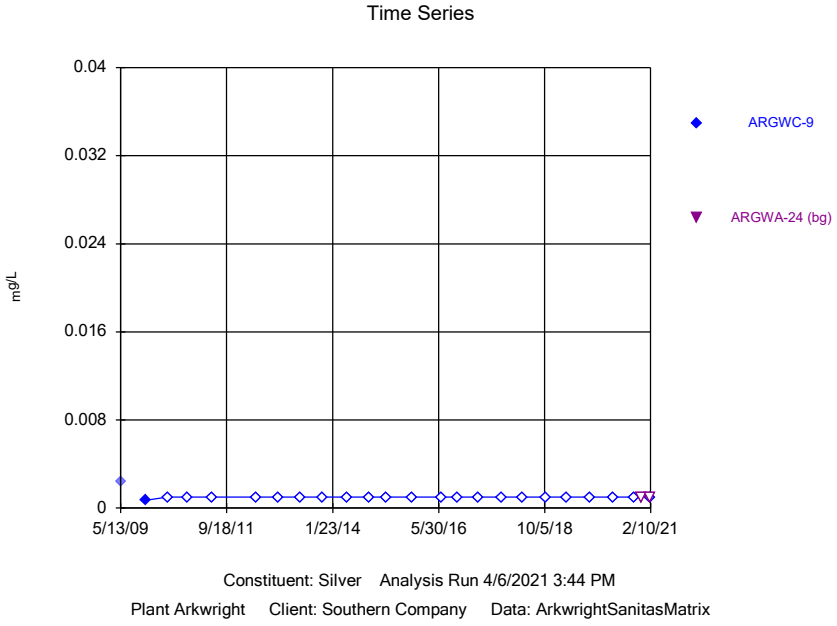
Constituent: Silver Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



Constituent: Silver Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

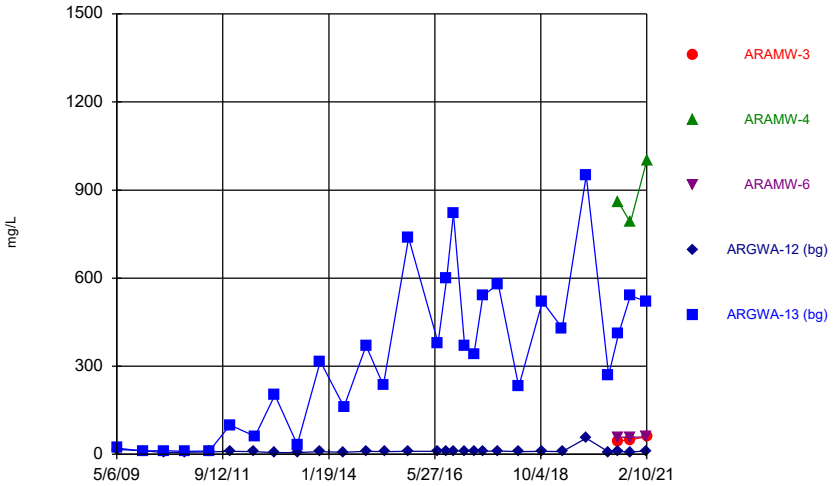
Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.



Constituent: Silver Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series



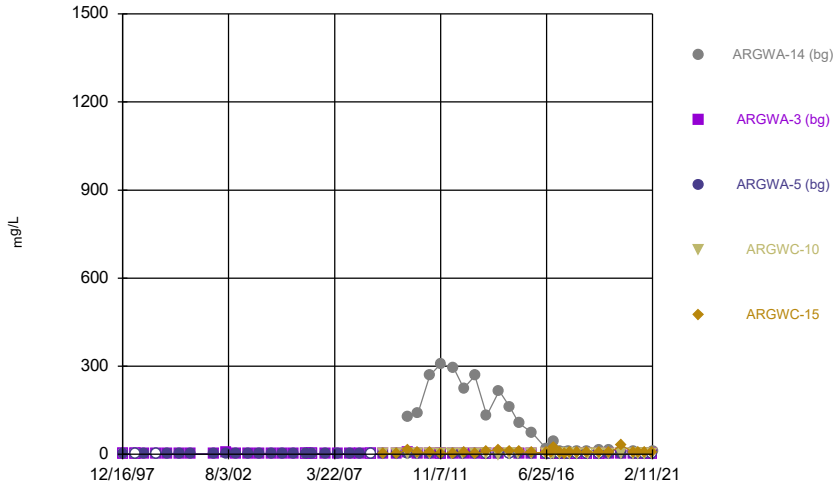
Constituent: Sulfate Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Hollow symbols indicate censored values.

Time Series

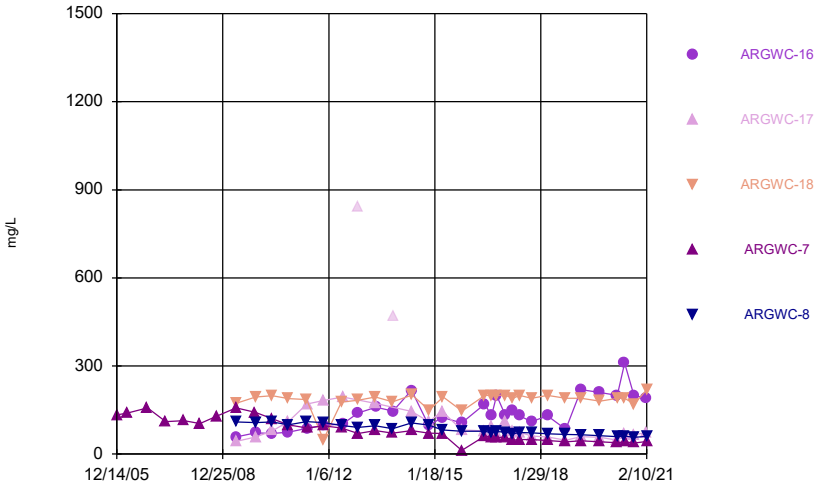


Constituent: Sulfate Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series



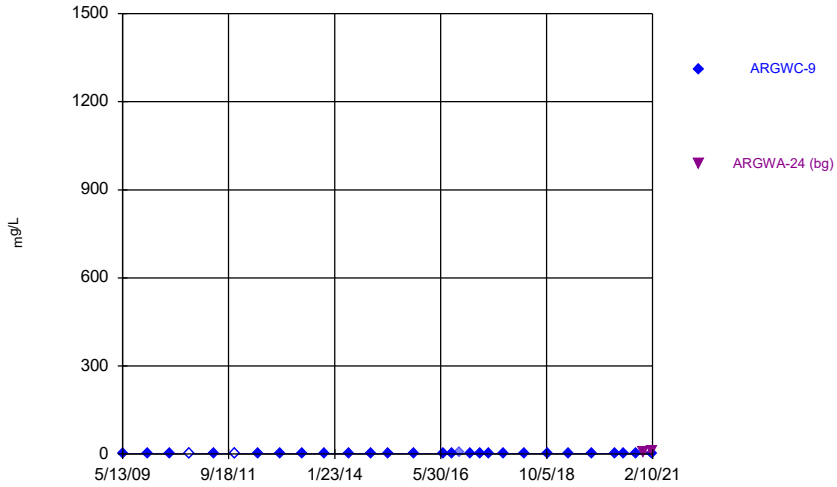
Constituent: Sulfate Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Hollow symbols indicate censored values.

Time Series

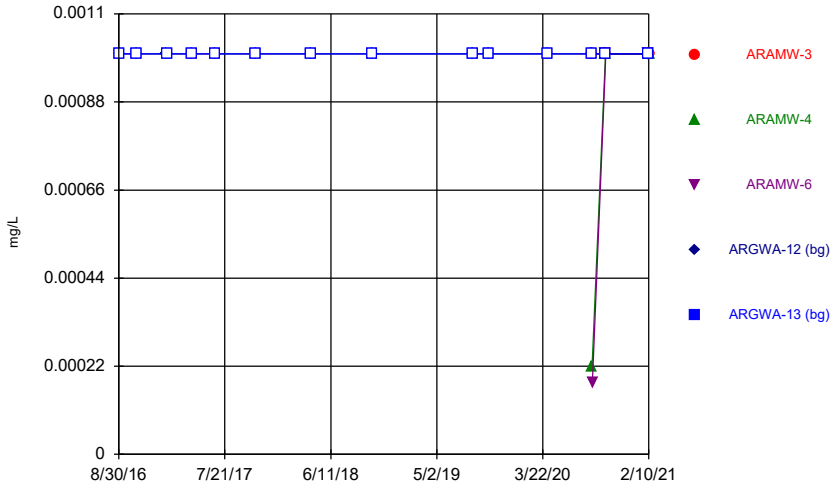


Constituent: Sulfate Analysis Run 4/6/2021 3:44 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

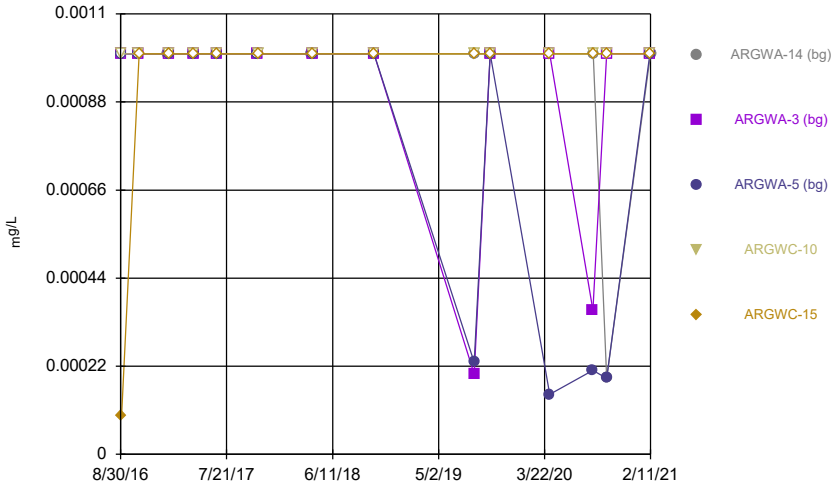
Time Series



Constituent: Thallium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

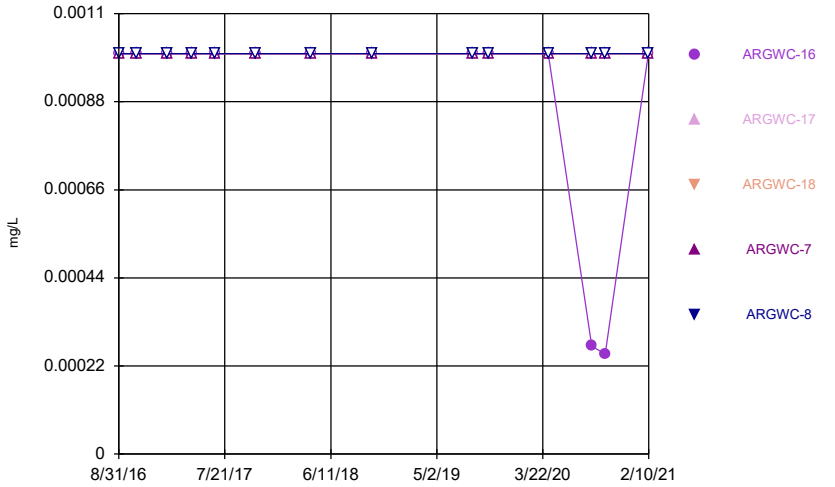
Time Series



Constituent: Thallium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

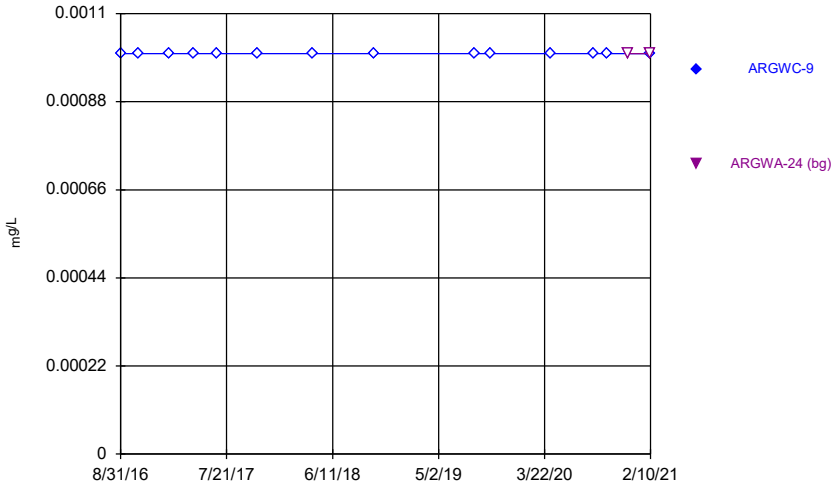
Time Series



Constituent: Thallium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.

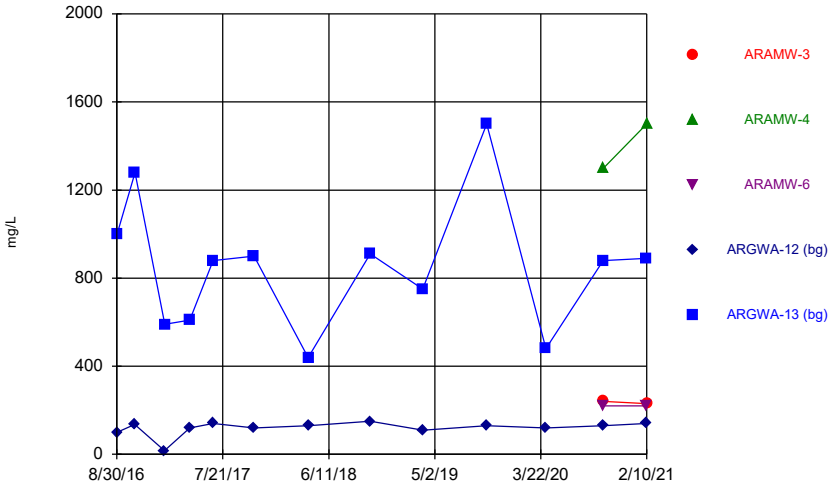
Time Series



Constituent: Thallium Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

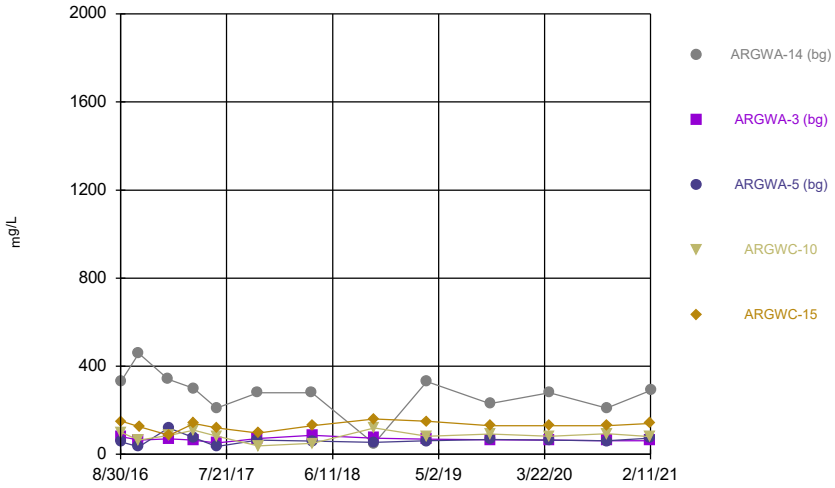
Time Series



Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

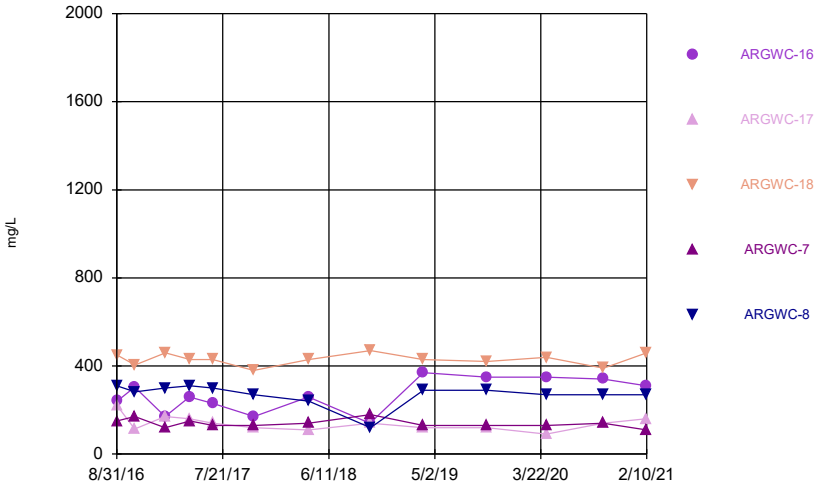
Time Series



Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

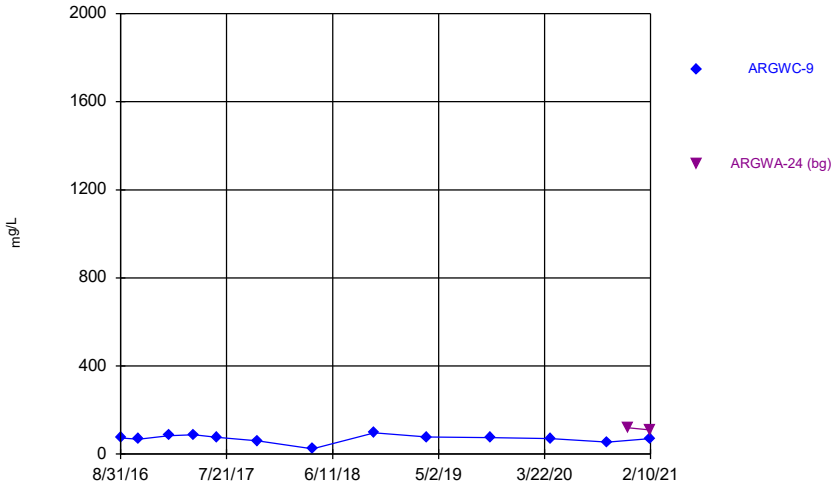
Time Series



Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:44 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				<0.002		
8/31/2016					<0.002	0.0017 (J)
10/24/2016				<0.002		
10/25/2016					<0.002	<0.002
1/23/2017				<0.002		<0.002
1/24/2017					<0.002	
4/11/2017				<0.002	<0.002	<0.002
6/20/2017						<0.002
6/21/2017				<0.002	<0.002	
10/25/2017				<0.002	<0.002	<0.002
4/9/2018					<0.002	<0.002
4/10/2018				<0.002		
10/16/2018				<0.002	<0.002	<0.002
8/19/2019					<0.002	
8/20/2019				<0.002		
8/21/2019						0.00064 (J)
10/7/2019						<0.002
10/8/2019				<0.002	<0.002	
4/6/2020						<0.002
4/7/2020				<0.002	<0.002	
8/18/2020				<0.002	<0.002	
8/19/2020						<0.002
8/20/2020	<0.002	<0.002				
8/21/2020			<0.002			

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.002				
8/31/2016	<0.002					
9/1/2016			<0.002		<0.002	<0.002
9/2/2016				<0.002		
10/25/2016	<0.002	<0.002	<0.002		<0.002	<0.002
10/26/2016				<0.002		
1/24/2017	<0.002	<0.002				
1/26/2017				<0.002	<0.002	<0.002
1/27/2017			<0.002			
4/11/2017	<0.002	<0.002			<0.002	<0.002
4/12/2017			<0.002	<0.002		
6/20/2017	<0.002	<0.002				
6/21/2017				<0.002	<0.002	<0.002
6/22/2017			<0.002			
10/25/2017	<0.002	<0.002				
10/26/2017			<0.002	<0.002	<0.002	<0.002
4/10/2018	<0.002	<0.002		<0.002	<0.002	<0.002
4/11/2018			<0.002			
10/16/2018	<0.002	<0.002			<0.002	
10/17/2018			<0.002	<0.002		<0.002
8/20/2019	<0.002	<0.002			<0.002	
8/21/2019			<0.002	<0.002		<0.002
10/8/2019	<0.002	<0.002		<0.002		
10/9/2019			<0.002		<0.002	<0.002
4/7/2020	<0.002	<0.002				
4/8/2020			0.00094 (J)	<0.002	<0.002	<0.002
8/18/2020	<0.002	<0.002				<0.002
8/19/2020			<0.002	<0.002	<0.002	

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.002	<0.002	<0.002	
9/1/2016	<0.002				
10/25/2016		0.0013 (J)		<0.002	
10/26/2016	<0.002		<0.002		
1/26/2017		<0.002	<0.002	<0.002	
1/27/2017	<0.002				
4/12/2017	<0.002	<0.002	<0.002	<0.002	
6/21/2017	<0.002		<0.002		
6/22/2017		<0.002		<0.002	
10/25/2017	<0.002	<0.002		<0.002	
10/26/2017			<0.002		
4/10/2018		<0.002			
4/11/2018	<0.002		<0.002	<0.002	
10/17/2018	<0.002	<0.002	<0.002	<0.002	
8/21/2019	<0.002	<0.002	<0.002	<0.002	
10/9/2019	<0.002	<0.002	<0.002	0.00048 (J)	
4/8/2020		<0.002			
4/9/2020	<0.002		<0.002	<0.002	
8/18/2020		<0.002			
8/19/2020				<0.002	
8/20/2020	<0.002		<0.002		
12/1/2020					<0.002
2/9/2021					<0.002

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				<0.001		
5/7/2009					0.0013	
12/3/2009				<0.001	<0.001	
5/25/2010				<0.001	<0.001	
6/2/2010						<0.001
11/9/2010				<0.001		
11/10/2010					<0.001	<0.001
5/19/2011						<0.001
5/24/2011				<0.001		
5/25/2011					<0.001	
11/9/2011						<0.001
11/10/2011				<0.001	<0.001	
5/18/2012				<0.001		
5/30/2012					<0.001	0.0026 (J)
11/9/2012				<0.001	<0.001	
11/11/2012						<0.001
5/8/2013				<0.001		
5/9/2013					<0.001	<0.001
11/6/2013				<0.001		
11/11/2013					<0.001	<0.001
5/20/2014				<0.001		
5/21/2014					<0.001	
5/29/2014						0.005 (J)
11/18/2014				<0.001	<0.001	
11/19/2014						<0.001
4/7/2015					<0.001	
4/14/2015				<0.001		<0.001
10/28/2015					<0.001	
10/29/2015				<0.001		
11/4/2015						<0.001
6/23/2016				<0.001	<0.001	0.0026
8/30/2016				<0.001		
8/31/2016					<0.001	0.0032
10/24/2016				<0.001		
10/25/2016					<0.001	<0.001
1/23/2017				<0.001		0.00088 (J)
1/24/2017					<0.001	
4/11/2017				0.00076 (J)	0.00063 (J)	0.00095 (J)
6/20/2017						0.00099 (J)
6/21/2017				<0.001	<0.001	
10/25/2017				<0.001	<0.001	<0.001
4/9/2018					<0.001	<0.001
4/10/2018				<0.001		
10/16/2018				<0.001	0.00055 (J)	0.00083 (J)
3/26/2019					0.00089 (J)	
3/27/2019				0.00049 (J)		0.0013
8/19/2019					0.00045 (J)	
8/20/2019				0.00046 (J)		
8/21/2019						0.0013
10/7/2019						0.00045 (J)
10/8/2019				<0.001	<0.001	
4/6/2020						<0.001

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
4/7/2020				<0.001	<0.001	
8/18/2020				<0.001	<0.001	
8/19/2020						<0.001
8/20/2020	<0.001	0.00034 (J)				
8/21/2020			<0.001			
9/29/2020				<0.001	<0.001	0.00038 (J)
9/30/2020	<0.001	0.00039 (J)				
10/1/2020			<0.001			
2/9/2021			<0.001	<0.001	<0.001	
2/10/2021	<0.001	<0.001				
2/11/2021						<0.001

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	0.002	<0.001				
6/30/1998	0.0006	<0.001				
12/2/1998	0.0007	<0.001				
6/8/1999	<0.001	<0.001				
12/7/1999	<0.001	<0.001				
6/15/2000	<0.001	<0.001				
12/12/2000	0.000475	0.00032				
12/5/2001	<0.001	0.0003				
6/26/2002	0.000431	0.000939				
12/3/2002	<0.001	<0.001				
6/11/2003	<0.001	<0.001				
12/10/2003	<0.001	<0.001				
6/15/2004	<0.001	<0.001				
12/14/2004	<0.001	<0.001				
6/2/2005	<0.001	<0.001				
12/14/2005	<0.001	<0.001				
4/5/2006	<0.001	<0.001				
10/30/2006	<0.001	<0.001				
5/10/2007	0.0044	<0.001				
11/17/2007	<0.001	<0.001				
5/3/2008	<0.001	<0.001				
10/22/2008	<0.001	<0.001				
5/5/2009				<0.001		
5/6/2009		<0.001				
5/7/2009	0.0028					
5/12/2009					0.003 (o)	<0.001
5/13/2009			0.0042 (o)			
12/1/2009		<0.001				
12/3/2009			<0.001			
12/4/2009	<0.001			<0.001		<0.001
12/5/2009					<0.001	
5/25/2010		<0.001				<0.001
5/26/2010			<0.001		<0.001	
6/1/2010	<0.001			<0.001		
11/9/2010		<0.001	<0.001		<0.001	<0.001
11/10/2010	<0.001			<0.001		
5/19/2011			<0.001			
5/24/2011		<0.001			<0.001	<0.001
5/25/2011	<0.001			<0.001		
11/9/2011				<0.001		
11/10/2011		<0.001				
11/11/2011			<0.001			
11/12/2011	<0.001				<0.001	<0.001
5/17/2012			<0.001			
5/18/2012		<0.001				
5/30/2012					<0.001	<0.001
5/31/2012	<0.001			<0.001		
11/9/2012		<0.001	<0.001		<0.001	0.01 (o)
11/10/2012				<0.001		
11/11/2012	<0.001					
5/7/2013			<0.001			
5/8/2013		<0.001				<0.001

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/13/2013	<0.001			<0.001	<0.001	
11/6/2013		<0.001	<0.001		<0.001	<0.001
11/12/2013	<0.001			<0.001		
5/20/2014		<0.001	<0.001			<0.001
5/21/2014					<0.001	
5/28/2014				<0.001		
5/29/2014	<0.001					
11/17/2014		<0.001			<0.001	<0.001
11/18/2014			<0.001			
11/20/2014				<0.001		
4/7/2015		<0.001	<0.001		<0.001	<0.001
4/14/2015	<0.001			<0.001		
10/28/2015		<0.001	<0.001		<0.001	<0.001
11/3/2015	<0.001			<0.001		
6/23/2016	<0.001	<0.001	<0.001	<0.001		
6/24/2016					<0.001	<0.001
8/30/2016		<0.001				
8/31/2016	<0.001					
9/1/2016			<0.001		<0.001	<0.001
9/2/2016				0.00062 (J)		
10/25/2016	<0.001	<0.001	<0.001		<0.001	<0.001
10/26/2016				<0.001		
1/24/2017	<0.001	<0.001				
1/26/2017				<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	0.00067 (J)	0.00077 (J)			0.00067 (J)	0.00084 (J)
4/12/2017			<0.001	<0.001		
6/20/2017	0.00064 (J)	0.00052 (J)				
6/21/2017				<0.001	<0.001	<0.001
6/22/2017			<0.001			
10/25/2017	<0.001	<0.001				
10/26/2017			<0.001	<0.001	<0.001	0.00087 (J)
4/10/2018	<0.001	<0.001		<0.001	<0.001	<0.001
4/11/2018			<0.001			
10/16/2018	<0.001	<0.001			<0.001	
10/17/2018			<0.001	<0.001		<0.001
3/27/2019	0.00055 (J)	0.00055 (J)		<0.001		
3/28/2019			0.0011 (J)		0.00057 (J)	<0.001
8/20/2019	0.00045 (J)	0.00058 (J)			<0.001	
8/21/2019			0.0004 (J)	0.00036 (J)		0.00044 (J)
10/8/2019	<0.001	<0.001		<0.001		
10/9/2019			0.0019		0.001	0.0015
4/7/2020	<0.001	<0.001				
4/8/2020			<0.001	<0.001	<0.001	<0.001
8/18/2020	<0.001	<0.001				<0.001
8/19/2020			<0.001	<0.001	<0.001	
9/29/2020	<0.001	<0.001		<0.001	<0.001	<0.001
10/1/2020			<0.001			
2/9/2021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		<0.001			
4/5/2006		<0.001			
10/30/2006		<0.001			
5/10/2007		<0.001			
11/17/2007		<0.001			
5/2/2008		<0.001			
10/22/2008		<0.001			
5/12/2009	0.0025 (o)				
5/13/2009				0.0034 (o)	
5/14/2009		<0.001	<0.001		
12/1/2009		<0.001			
12/3/2009			<0.001	<0.001	
12/4/2009	<0.001				
5/25/2010	<0.001				
5/26/2010		<0.001	<0.001	<0.001	
11/9/2010			<0.001	<0.001	
11/10/2010	<0.001	<0.001			
5/18/2011			<0.001		
5/19/2011	<0.001			<0.001	
5/25/2011		<0.001			
11/11/2011		<0.001	<0.001	<0.001	
11/12/2011	<0.001				
5/17/2012	<0.001	<0.001	<0.001	<0.001	
11/9/2012		<0.001	<0.001	<0.001	
11/10/2012	<0.001				
5/7/2013	<0.001		<0.001	<0.001	
5/8/2013		<0.001			
11/5/2013	<0.001	<0.001	<0.001		
11/6/2013				<0.001	
5/21/2014		<0.001	<0.001	<0.001	
5/28/2014	<0.001				
11/17/2014		<0.001			
11/18/2014			<0.001	<0.001	
11/19/2014	<0.001				
4/7/2015		<0.001	<0.001	<0.001	
4/15/2015	<0.001				
10/28/2015		<0.001	<0.001	<0.001	
10/29/2015	<0.001				
6/23/2016		<0.001	<0.001	<0.001	
6/24/2016	<0.001				
8/31/2016		<0.001	<0.001	<0.001	
9/1/2016	<0.001				
10/25/2016		<0.001		<0.001	
10/26/2016	<0.001		<0.001		
1/26/2017		<0.001	<0.001	<0.001	
1/27/2017	<0.001				
4/12/2017	<0.001	0.00078 (J)	0.00072 (J)	<0.001	
6/21/2017	<0.001		<0.001		
6/22/2017		<0.001		<0.001	
10/25/2017	<0.001	<0.001		<0.001	
10/26/2017			<0.001		
4/10/2018		<0.001			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
4/11/2018	<0.001		<0.001	<0.001	
10/17/2018	0.00066 (J)	<0.001	0.00063 (J)	<0.001	
3/27/2019	<0.001				
3/28/2019		<0.001	<0.001	0.00051 (J)	
8/21/2019	0.00033 (J)	<0.001	0.00036 (J)	<0.001	
10/9/2019	0.0016	0.0015	0.0014	0.0011	
4/8/2020		<0.001			
4/9/2020	<0.001		<0.001	<0.001	
8/18/2020		<0.001			
8/19/2020				<0.001	
8/20/2020	<0.001		<0.001		
9/29/2020		<0.001			
9/30/2020	<0.001				
10/1/2020			<0.001	<0.001	
12/1/2020					<0.001
2/9/2021					<0.001
2/10/2021	<0.001	<0.001	<0.001	<0.001	

Time Series

Constituent: Barium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				0.065		
5/7/2009					0.068	
12/3/2009				0.062	0.044	
5/25/2010				0.038 (o)	0.049	
6/2/2010						0.046
11/9/2010				0.059		
11/10/2010					0.052	0.057
5/19/2011						0.048
5/24/2011				0.054		
5/25/2011					0.045	
11/9/2011						0.045
11/10/2011				0.063	0.11	
5/18/2012				0.0646		
5/30/2012					0.0831	0.0519
11/9/2012				0.081	0.13	
11/11/2012						0.051
5/8/2013				0.066		
5/9/2013					0.059	0.056
11/6/2013				0.074		
11/11/2013					0.12	0.041
5/20/2014				0.057		
5/21/2014					0.073	
5/29/2014						0.051
11/18/2014				0.069	0.072	
11/19/2014						0.051
4/7/2015					0.06	
4/14/2015				0.067		0.043
10/28/2015					0.057	
10/29/2015				0.069		
11/4/2015						0.042
6/23/2016				0.063	0.036	0.084
8/30/2016				0.062		
8/31/2016					0.041	0.076
10/24/2016				0.0674		
10/25/2016					0.0429	0.039
1/23/2017				0.069		0.044
1/24/2017					0.025	
4/11/2017				0.064	0.024	0.038
6/20/2017						0.057
6/21/2017				0.074	0.034	
10/25/2017				0.07	0.03	0.05
4/9/2018					0.023	0.049
4/10/2018				0.073		
10/16/2018				0.069	0.028	0.06
3/26/2019					0.029	
3/27/2019				0.063		0.054
8/19/2019					0.035	
8/20/2019				0.075		
8/21/2019						0.031
10/7/2019						0.033
10/8/2019				0.078	0.042	
4/6/2020						0.051

Time Series

Constituent: Barium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
4/7/2020				0.066	0.021	
8/18/2020				0.079	0.025	
8/19/2020						0.041
8/20/2020	0.093	0.053				
8/21/2020			0.049			
9/29/2020				0.079	0.024	0.062
9/30/2020	0.094	0.053				
10/1/2020			0.044			
2/9/2021			0.041	0.076	0.022	
2/10/2021	0.066	0.042				
2/11/2021						0.066

Time Series

Constituent: Barium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	2.12 (o)	0.032				
6/30/1998	0.177	0.028				
12/2/1998	0.115	0.032				
6/8/1999	0.074	0.0287				
12/7/1999	0.043	0.034				
6/15/2000	0.113	0.034				
12/12/2000	0.059	0.027				
12/5/2001	0.052	0.027				
6/26/2002	0.087	0.032				
12/3/2002	0.043	0.023				
6/11/2003	0.24	0.04				
12/10/2003	0.03	0.024				
6/15/2004	0.028	0.021				
12/14/2004	0.017	0.025				
6/2/2005	0.019	0.025				
12/14/2005	0.02	0.026				
4/5/2006	0.019	0.027				
10/30/2006	<0.001 (o)	0.027				
5/10/2007	0.017	0.024				
11/17/2007	0.015	0.026				
5/3/2008	0.017	0.022				
10/22/2008	0.11	0.027				
5/5/2009				0.042		
5/6/2009		0.023				
5/7/2009	0.13					
5/12/2009					0.16 (o)	0.048
5/13/2009			0.15 (o)			
12/1/2009		0.033				
12/3/2009			0.03			
12/4/2009	0.019			0.051		0.055
12/5/2009					0.062	
5/25/2010		0.03				0.063
5/26/2010			0.029		0.065	
6/1/2010	0.027			0.055		
11/9/2010		0.033	0.029		0.065	0.11
11/10/2010	0.025			0.041		
5/19/2011			0.027			
5/24/2011		0.027			0.062	0.11
5/25/2011	0.015			0.035		
11/9/2011				0.035		
11/10/2011		0.032				
11/11/2011			0.031			
11/12/2011	0.021				0.067	0.086
5/17/2012			0.0299			
5/18/2012		0.0311				
5/30/2012					0.0767	0.0586
5/31/2012	0.0222			0.0372		
11/9/2012		0.034	0.03		0.093	0.4 (o)
11/10/2012				0.044		
11/11/2012	0.022					
5/7/2013			0.028			
5/8/2013		0.026				0.054

Time Series

Constituent: Barium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/13/2013	0.019			0.2 (o)	0.093	
11/6/2013		0.028	0.033		0.068	0.043
11/12/2013	0.025			0.035		
5/20/2014		0.027	0.029			0.051
5/21/2014					0.072	
5/28/2014				0.038		
5/29/2014	0.024					
11/17/2014		0.029			0.05	0.049
11/18/2014			0.029			
11/20/2014				0.037		
4/7/2015		0.024	0.028		0.055	0.043
4/14/2015	0.022			0.035		
10/28/2015		0.028	0.029		0.054	0.047
11/3/2015	0.022			0.038		
6/23/2016	0.019	0.025	0.028	0.028		
6/24/2016					0.056	0.044
8/30/2016		0.026				
8/31/2016	0.018					
9/1/2016			0.027		0.051	0.046
9/2/2016				0.074		
10/25/2016	0.016	0.0293	0.0296		0.0637	0.0436
10/26/2016				0.0408		
1/24/2017	0.017	0.028				
1/26/2017				0.038	0.055	0.051
1/27/2017			0.035			
4/11/2017	0.016	0.024			0.055	0.043
4/12/2017			0.031	0.03		
6/20/2017	0.02	0.027				
6/21/2017				0.028	0.054	0.043
6/22/2017			0.035			
10/25/2017	0.019	0.03				
10/26/2017			0.032	0.029	0.046	0.038
4/10/2018	0.019	0.028		0.032	0.056	0.046
4/11/2018			0.034			
10/16/2018	0.018	0.027			0.039	
10/17/2018			0.031	0.028		0.043
3/27/2019	0.019	0.024		0.032		
3/28/2019			0.031		0.054	0.045
8/20/2019	0.02	0.029			0.046	
8/21/2019			0.035	0.033		0.05
10/8/2019	0.02	0.03		0.031		
10/9/2019			0.031		0.057	0.049
4/7/2020	0.018	0.02				
4/8/2020			0.031	0.03	0.042	0.045
8/18/2020	0.021	0.031				0.062
8/19/2020			0.034	0.028	0.045	
9/29/2020	0.019	0.03		0.03	0.042	0.056
10/1/2020			0.032			
2/9/2021	0.017	0.028	0.031	0.029	0.044	0.051

Time Series

Constituent: Barium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		0.027			
4/5/2006		0.029			
10/30/2006		0.028			
5/10/2007		0.025			
11/17/2007		0.026			
5/2/2008		0.026			
10/22/2008		0.033			
5/12/2009	0.055				
5/13/2009				0.14 (o)	
5/14/2009		0.035	0.039		
12/1/2009		0.031			
12/3/2009			0.036	0.032	
12/4/2009	0.036				
5/25/2010	0.033				
5/26/2010		0.025	0.036	0.031	
11/9/2010			0.038	0.03	
11/10/2010	0.038	0.027			
5/18/2011			0.032		
5/19/2011	0.028			0.028	
5/25/2011		0.022			
11/11/2011		0.027	0.036	0.032	
11/12/2011	0.092 (o)				
5/17/2012	0.0427	0.0265	0.0353	0.0319	
11/9/2012		0.028	0.038	0.036	
11/10/2012	0.038				
5/7/2013	0.03		0.037	0.035	
5/8/2013		0.026			
11/5/2013	0.087 (o)	0.027	0.037		
11/6/2013				0.043	
5/21/2014		0.028	0.037	0.042	
5/28/2014	0.032				
11/17/2014		0.031			
11/18/2014			0.038	0.044	
11/19/2014	0.058				
4/7/2015		0.029	0.045	0.043	
4/15/2015	0.039				
10/28/2015		0.032	0.042	0.045	
10/29/2015	0.04				
6/23/2016		0.031	0.039	0.043	
6/24/2016	0.034				
8/31/2016		0.03	0.037	0.042	
9/1/2016	0.033				
10/25/2016		0.0317		0.0455	
10/26/2016	0.0339		0.0423		
1/26/2017		0.035	0.046	0.048	
1/27/2017	0.037				
4/12/2017	0.032	0.034	0.041	0.045	
6/21/2017	0.036		0.049		
6/22/2017		0.038		0.055	
10/25/2017	0.041	0.038		0.049	
10/26/2017			0.046		
4/10/2018		0.038			

Time Series

Constituent: Barium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
4/11/2018	0.04		0.048	0.052	
10/17/2018	0.039	0.038	0.045	0.046	
3/27/2019	0.033				
3/28/2019		0.038	0.045	0.047	
8/21/2019	0.036	0.041	0.052	0.045	
10/9/2019	0.039	0.046	0.049	0.041	
4/8/2020		0.039			
4/9/2020	0.041		0.045	0.044	
8/18/2020		0.044			
8/19/2020				0.046	
8/20/2020	0.041		0.053		
9/29/2020		0.042			
9/30/2020	0.041				
10/1/2020			0.052	0.045	
12/1/2020					0.038
2/9/2021					0.036
2/10/2021	0.038	0.041	0.049	0.038	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				<0.0025		
8/31/2016					<0.0025	<0.0025
10/24/2016				<0.0025		
10/25/2016					<0.0025	<0.0025
1/23/2017				<0.0025		<0.0025
1/24/2017					<0.0025	
4/11/2017				<0.0025	<0.0025	<0.0025
6/20/2017						<0.0025
6/21/2017				<0.0025	<0.0025	
10/25/2017				<0.0025	<0.0025	<0.0025
4/9/2018					<0.0025	<0.0025
4/10/2018				<0.0025		
10/16/2018				<0.0025	<0.0025	<0.0025
8/19/2019					<0.0025	
8/20/2019				<0.0025		
8/21/2019						<0.0025
10/7/2019						<0.0025
10/8/2019				<0.0025	<0.0025	
4/6/2020						<0.0025
4/7/2020				<0.0025	<0.0025	
8/18/2020				<0.0025	<0.0025	
8/19/2020						<0.0025
8/20/2020	<0.0025	<0.0025				
8/21/2020			<0.0025			
9/29/2020				<0.0025	<0.0025	<0.0025
9/30/2020	<0.0025	<0.0025				
10/1/2020			<0.0025			
2/9/2021			<0.0025	<0.0025	<0.0025	
2/10/2021	<0.0025	<0.0025				
2/11/2021						<0.0025

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.0025				
8/31/2016	<0.0025					
9/1/2016			<0.0025		<0.0025	0.00034 (J)
9/2/2016				<0.0025		
10/25/2016	<0.0025	<0.0025	<0.0025		<0.0025	0.0002 (J)
10/26/2016				<0.0025		
1/24/2017	<0.0025	<0.0025				
1/26/2017				<0.0025	<0.0025	<0.0025
1/27/2017			<0.0025			
4/11/2017	<0.0025	<0.0025			<0.0025	<0.0025
4/12/2017			<0.0025	<0.0025		
6/20/2017	<0.0025	<0.0025				
6/21/2017				<0.0025	<0.0025	<0.0025
6/22/2017			<0.0025			
10/25/2017	<0.0025	<0.0025				
10/26/2017			<0.0025	<0.0025	<0.0025	<0.0025
4/10/2018	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
4/11/2018			<0.0025			
10/16/2018	<0.0025	<0.0025			<0.0025	
10/17/2018			<0.0025	<0.0025		<0.0025
8/20/2019	0.00025 (J)	0.00035 (J)			<0.0025	
8/21/2019			<0.0025	<0.0025		0.00025 (J)
10/8/2019	<0.0025	0.00041 (J)		<0.0025		
10/9/2019			<0.0025		0.00027 (J)	0.00076 (J)
4/7/2020	<0.0025	<0.0025				
4/8/2020			<0.0025	<0.0025	<0.0025	0.00025 (J)
8/18/2020	<0.0025	<0.0025				0.00039 (J)
8/19/2020			<0.0025	<0.0025	<0.0025	
9/29/2020	<0.0025	<0.0025		<0.0025	<0.0025	0.0004 (J)
10/1/2020			<0.0025			
2/9/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.0025	<0.0025	<0.0025	
9/1/2016	<0.0025				
10/25/2016		0.0001 (J)		<0.0025	
10/26/2016	<0.0025		<0.0025		
1/26/2017		<0.0025	<0.0025	<0.0025	
1/27/2017	<0.0025				
4/12/2017	<0.0025	<0.0025	<0.0025	<0.0025	
6/21/2017	<0.0025		<0.0025		
6/22/2017		<0.0025		<0.0025	
10/25/2017	<0.0025	<0.0025		<0.0025	
10/26/2017			<0.0025		
4/10/2018		<0.0025			
4/11/2018	<0.0025		<0.0025	<0.0025	
10/17/2018	<0.0025	<0.0025	<0.0025	<0.0025	
8/21/2019	<0.0025	<0.0025	<0.0025	<0.0025	
10/9/2019	0.00034 (J)	0.00041 (J)	0.00047 (J)	0.00037 (J)	
4/8/2020		<0.0025			
4/9/2020	<0.0025		<0.0025	<0.0025	
8/18/2020		<0.0025			
8/19/2020				<0.0025	
8/20/2020	<0.0025		<0.0025		
9/29/2020		<0.0025			
9/30/2020	<0.0025				
10/1/2020			<0.0025	<0.0025	
12/1/2020					<0.0025
2/9/2021					<0.0025
2/10/2021	<0.0025	<0.0025	<0.0025	<0.0025	

Time Series

Constituent: Boron (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				0.032 (J)		
8/31/2016					0.1	0.04 (J)
10/24/2016				0.0406 (J)		
10/25/2016					0.204	0.065 (J)
1/23/2017				0.023 (J)		0.031 (J)
1/24/2017					0.064	
4/11/2017				0.025 (J)	0.081	0.043 (J)
6/20/2017						0.029 (J)
6/21/2017				<0.08	0.13	
10/25/2017				0.028 (J)	0.17	0.041 (J)
4/9/2018					0.059	0.04 (J)
4/10/2018				0.027 (J)		
10/16/2018				0.023 (J)	0.34	0.046 (J)
3/26/2019					0.32	
3/27/2019				<0.08		0.032 (J)
10/7/2019						<0.08
10/8/2019				<0.08	0.68	
1/15/2020	1	0.32	0.96			
4/6/2020						0.041 (J)
4/7/2020				<0.08	0.23	
6/24/2020	0.99	0.4	1			
6/25/2020					0.32	<0.08
6/26/2020				<0.08		
9/29/2020				<0.08	0.35	0.039 (J)
9/30/2020	1.1	0.36				
10/1/2020			1.1			
2/9/2021			0.85	<0.08	0.38	
2/10/2021	0.99	0.4				
2/11/2021						0.062 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.08				
8/31/2016	<0.08					
9/1/2016			<0.08		0.049 (J)	0.022 (J)
9/2/2016				<0.08		
10/25/2016	0.0068 (J)	0.0073 (J)	<0.08		0.042 (J)	0.0219 (J)
10/26/2016				0.0138 (J)		
1/24/2017	<0.08	<0.08				
1/26/2017				<0.08	0.059	<0.08
1/27/2017			<0.08			
4/11/2017	<0.08	<0.08			0.045 (J)	<0.08
4/12/2017			<0.08	<0.08		
6/20/2017	<0.08	<0.08				
6/21/2017				<0.08	0.045 (J)	<0.08
6/22/2017			<0.08			
10/25/2017	<0.08	<0.08				
10/26/2017			0.026 (J)	<0.08	0.054	0.023 (J)
4/10/2018	<0.08	<0.08		<0.08	0.048 (J)	0.026 (J)
4/11/2018			<0.08			
10/16/2018	<0.08	<0.08			0.048 (J)	
10/17/2018			<0.08	<0.08		<0.08
3/27/2019	<0.08	<0.08		<0.08		
3/28/2019			<0.08		0.08	0.022 (J)
10/8/2019	<0.08	<0.08		<0.08		
10/9/2019			<0.08		0.065 (J)	<0.08
4/7/2020	<0.08	<0.08				
4/8/2020			<0.08	<0.08	0.059 (J)	<0.08
6/23/2020			0.053 (J)			
6/24/2020					0.11	0.059 (J)
6/25/2020	<0.08	<0.08		<0.08		
9/29/2020	<0.08	<0.08		<0.08	0.081	0.045 (J)
10/1/2020			0.082			
2/9/2021	<0.08	<0.08	<0.08	<0.08	0.076 (J)	0.042 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		0.14	1.3	<0.08	
9/1/2016	2.4				
10/25/2016		0.126		0.0071 (J)	
10/26/2016	1.97		1.14		
1/26/2017		0.14	1.5	<0.08	
1/27/2017	2.6				
4/12/2017	2.4	0.12	1.3	<0.08	
6/21/2017	2.2		1.3		
6/22/2017		0.11		<0.08	
10/25/2017	2.5	0.12		<0.08	
10/26/2017			1.5		
4/10/2018		0.1			
4/11/2018	2.7		1	<0.08	
10/17/2018	2.2	0.084	1.3	<0.08	
3/27/2019	2.3				
3/28/2019		0.087	1.3	0.044 (J)	
10/9/2019	2.1	0.076 (J)	1.2	<0.08	
4/8/2020		0.086			
4/9/2020	2.3		1.1	<0.08	
6/23/2020			1.1		
6/24/2020	2.2				
6/25/2020		0.091			
6/26/2020				<0.08	
9/29/2020		0.078 (J)			
9/30/2020	2.6				
10/1/2020			1.2	0.041 (J)	
12/1/2020					<0.08
2/9/2021					<0.08
2/10/2021	2.4	0.1	1.3	0.06 (J)	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				<0.0025		
5/7/2009					<0.0025	
12/3/2009				<0.0025	<0.0025	
5/25/2010				<0.0025	<0.0025	
6/2/2010						<0.0025
11/9/2010				<0.0025		
11/10/2010					<0.0025	<0.0025
5/19/2011						<0.0025
5/24/2011				<0.0025		
5/25/2011					<0.0025	
11/9/2011						<0.0025
11/10/2011				<0.0025	<0.0025	
5/18/2012				<0.0025		
5/30/2012					<0.0025	<0.0025
11/9/2012				<0.0025	<0.0025	
11/11/2012						<0.0025
5/8/2013				<0.0025		
5/9/2013					<0.0025	<0.0025
11/6/2013				<0.0025		
11/11/2013					<0.0025	<0.0025
5/20/2014				<0.0025		
5/21/2014					<0.0025	
5/29/2014						<0.0025
11/18/2014				<0.0025	<0.0025	
11/19/2014						<0.0025
4/7/2015					<0.0025	
4/14/2015				0.00026		<0.0025
10/28/2015					<0.0025	
10/29/2015				<0.0025		
11/4/2015						<0.0025
6/23/2016				<0.0025	<0.0025	<0.0025
8/30/2016				<0.0025		
8/31/2016					<0.0025	0.00039 (J)
10/24/2016				<0.0025		
10/25/2016					<0.0025	<0.0025
1/23/2017				<0.0025		<0.0025
1/24/2017					<0.0025	
4/11/2017				<0.0025	<0.0025	<0.0025
6/20/2017						<0.0025
6/21/2017				<0.0025	<0.0025	
10/25/2017				<0.0025	<0.0025	<0.0025
4/9/2018					<0.0025	0.00052 (J)
4/10/2018				<0.0025		
10/16/2018				<0.0025	<0.0025	0.00071 (J)
3/26/2019					<0.0025	
3/27/2019				<0.0025		<0.0025
8/19/2019					<0.0025	
8/20/2019				<0.0025		
8/21/2019						0.00015 (J)
10/7/2019						<0.0025
10/8/2019				<0.0025	<0.0025	
4/6/2020						<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
4/7/2020				<0.0025	<0.0025	
8/18/2020				<0.0025	<0.0025	
8/19/2020						<0.0025
8/20/2020	<0.0025	<0.0025				
8/21/2020			<0.0025			
2/9/2021			<0.0025	<0.0025	<0.0025	
2/10/2021	<0.0025	<0.0025				
2/11/2021						<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	0.103 (o)	<0.0025				
6/30/1998	0.007 (o)	<0.0025				
12/2/1998	0.007 (o)	<0.0025				
6/8/1999	<0.0025	<0.0025				
12/7/1999	<0.0025	<0.0025				
6/15/2000	<0.0025	<0.0025				
12/12/2000	<0.0025	<0.0025				
12/5/2001	0.002	<0.0025				
6/26/2002	0.003	<0.0025				
12/3/2002	<0.0025	<0.0025				
6/11/2003	0.0043	<0.0025				
12/10/2003	<0.0025	<0.0025				
6/15/2004	<0.0025	<0.0025				
12/14/2004	<0.0025	0.0012				
6/2/2005	<0.0025	<0.0025				
12/14/2005	<0.0025	<0.0025				
4/5/2006	<0.0025	<0.0025				
10/30/2006	<0.0025	<0.0025				
5/10/2007	<0.0025	<0.0025				
11/17/2007	<0.0025	<0.0025				
5/3/2008	0.00033	<0.0025				
10/22/2008	<0.0025	<0.0025				
5/5/2009				<0.0025		
5/6/2009		<0.0025				
5/7/2009	<0.0025					
5/12/2009					<0.0025	<0.0025
5/13/2009			<0.0025			
12/1/2009		<0.0025				
12/3/2009			<0.0025			
12/4/2009	<0.0025			<0.0025		<0.0025
12/5/2009					<0.0025	
5/25/2010		<0.0025				<0.0025
5/26/2010			<0.0025		<0.0025	
6/1/2010	<0.0025			<0.0025		
11/9/2010		<0.0025	<0.0025		<0.0025	<0.0025
11/10/2010	<0.0025			<0.0025		
5/19/2011			<0.0025			
5/24/2011		<0.0025			<0.0025	<0.0025
5/25/2011	<0.0025			<0.0025		
11/9/2011				<0.0025		
11/10/2011		<0.0025				
11/11/2011			<0.0025			
11/12/2011	<0.0025				<0.0025	<0.0025
5/17/2012			<0.0025			
5/18/2012		<0.0025				
5/30/2012					<0.0025	<0.0025
5/31/2012	<0.0025			<0.0025		
11/9/2012		<0.0025	<0.0025		<0.0025	0.0015
11/10/2012				<0.0025		
11/11/2012	<0.0025					
5/7/2013			<0.0025			
5/8/2013		<0.0025				<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/13/2013	<0.0025			<0.0025	<0.0025	
11/6/2013		<0.0025	<0.0025		<0.0025	<0.0025
11/12/2013	<0.0025			<0.0025		
5/20/2014		<0.0025	<0.0025			<0.0025
5/21/2014					<0.0025	
5/28/2014				0		
5/29/2014	<0.0025					
11/17/2014		<0.0025			<0.0025	<0.0025
11/18/2014			<0.0025			
11/20/2014				<0.0025		
4/7/2015		<0.0025	<0.0025		<0.0025	<0.0025
4/14/2015	<0.0025			<0.0025		
10/28/2015		<0.0025	<0.0025		<0.0025	<0.0025
11/3/2015	<0.0025			<0.0025		
6/23/2016	<0.0025	<0.0025	<0.0025	<0.0025		
6/24/2016					<0.0025	<0.0025
8/30/2016		<0.0025				
8/31/2016	<0.0025					
9/1/2016			<0.0025		<0.0025	<0.0025
9/2/2016				<0.0025		
10/25/2016	<0.0025	<0.0025	<0.0025		0.0001 (J)	0.0001 (J)
10/26/2016				<0.0025		
1/24/2017	<0.0025	<0.0025				
1/26/2017				<0.0025	<0.0025	<0.0025
1/27/2017			<0.0025			
4/11/2017	<0.0025	<0.0025			<0.0025	<0.0025
4/12/2017			<0.0025	<0.0025		
6/20/2017	<0.0025	<0.0025				
6/21/2017				<0.0025	<0.0025	<0.0025
6/22/2017			<0.0025			
10/25/2017	<0.0025	<0.0025				
10/26/2017			<0.0025	<0.0025	<0.0025	<0.0025
4/10/2018	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
4/11/2018			<0.0025			
10/16/2018	<0.0025	<0.0025			<0.0025	
10/17/2018			<0.0025	<0.0025		<0.0025
3/27/2019	<0.0025	<0.0025		<0.0025		
3/28/2019			<0.0025		<0.0025	<0.0025
8/20/2019	0.00014 (J)	<0.0025			<0.0025	
8/21/2019			<0.0025	<0.0025		0.00013 (J)
10/8/2019	<0.0025	<0.0025		<0.0025		
10/9/2019			<0.0025		<0.0025	0.00018 (J)
4/7/2020	<0.0025	<0.0025				
4/8/2020			<0.0025	<0.0025	<0.0025	<0.0025
8/18/2020	<0.0025	<0.0025				<0.0025
8/19/2020			<0.0025	<0.0025	<0.0025	
2/9/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		<0.0025			
4/5/2006		<0.0025			
10/30/2006		<0.0025			
5/10/2007		<0.0025			
11/17/2007		<0.0025			
5/2/2008		<0.0025			
10/22/2008		<0.0025			
5/12/2009	<0.0025				
5/13/2009				<0.0025	
5/14/2009		<0.0025	<0.0025		
12/1/2009		<0.0025			
12/3/2009			<0.0025	<0.0025	
12/4/2009	<0.0025				
5/25/2010	<0.0025				
5/26/2010		<0.0025	<0.0025	<0.0025	
11/9/2010			<0.0025	<0.0025	
11/10/2010	<0.0025	<0.0025			
5/18/2011			<0.0025		
5/19/2011	<0.0025			<0.0025	
5/25/2011		<0.0025			
11/11/2011		<0.0025	<0.0025	<0.0025	
11/12/2011	<0.0025				
5/17/2012	<0.0025	<0.0025	<0.0025	<0.0025	
11/9/2012		<0.0025	<0.0025	<0.0025	
11/10/2012	<0.0025				
5/7/2013	<0.0025		<0.0025	<0.0025	
5/8/2013		<0.0025			
11/5/2013	<0.0025	<0.0025	<0.0025		
11/6/2013				<0.0025	
5/21/2014		<0.0025	<0.0025	<0.0025	
5/28/2014	<0.0025				
11/17/2014		<0.0025			
11/18/2014			<0.0025	<0.0025	
11/19/2014	<0.0025				
4/7/2015		<0.0025	<0.0025	<0.0025	
4/15/2015	<0.0025				
10/28/2015		<0.0025	<0.0025	<0.0025	
10/29/2015	<0.0025				
6/23/2016		<0.0025	<0.0025	<0.0025	
6/24/2016	<0.0025				
8/31/2016		<0.0025	<0.0025	<0.0025	
9/1/2016	<0.0025				
10/25/2016		<0.0025		<0.0025	
10/26/2016	<0.0025		<0.0025		
1/26/2017		<0.0025	<0.0025	<0.0025	
1/27/2017	<0.0025				
4/12/2017	<0.0025	<0.0025	<0.0025	<0.0025	
6/21/2017	<0.0025		<0.0025		
6/22/2017		<0.0025		<0.0025	
10/25/2017	<0.0025	<0.0025		<0.0025	
10/26/2017			<0.0025		
4/10/2018		<0.0025			

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
4/11/2018	<0.0025		<0.0025	<0.0025	
10/17/2018	<0.0025	<0.0025	<0.0025	<0.0025	
3/27/2019	<0.0025				
3/28/2019		<0.0025	<0.0025	<0.0025	
8/21/2019	<0.0025	<0.0025	<0.0025	<0.0025	
10/9/2019	<0.0025	<0.0025	<0.0025	<0.0025	
4/8/2020		<0.0025			
4/9/2020	<0.0025		<0.0025	<0.0025	
8/18/2020		<0.0025			
8/19/2020				<0.0025	
8/20/2020	<0.0025		<0.0025		
12/1/2020					<0.0025
2/9/2021					<0.0025
2/10/2021	<0.0025	<0.0025	<0.0025	<0.0025	

Time Series

Constituent: Calcium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				11		
8/31/2016					110	31
10/24/2016				10.4		
10/25/2016					150	38.5
1/23/2017				12		25
1/24/2017					78	
4/11/2017				12	78	33
6/20/2017						34
6/21/2017				12	110	
10/25/2017				13	120	28
4/9/2018					49	30
4/10/2018				13		
10/16/2018				12	110	41
3/26/2019					95	
3/27/2019				11		42
10/7/2019						36
10/8/2019				13	190	
4/6/2020						43
4/7/2020				12	61	
6/24/2020	33	170	33			
6/25/2020					100	27
6/26/2020				15		
9/29/2020				14	120	29
9/30/2020	37	210				
10/1/2020			38			
2/9/2021			33	14	110	
2/10/2021	30	220				
2/11/2021						40

Time Series

Constituent: Calcium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		5.1				
8/31/2016	5.4					
9/1/2016			6.6		21	16
9/2/2016				22		
10/25/2016	4.47	4.76	5.89		29.8	13.5
10/26/2016				23.7		
1/24/2017	5.8	5.6				
1/26/2017				23	23	21
1/27/2017			7.4			
4/11/2017	5.3	4.7			28	16
4/12/2017			6.7	17		
6/20/2017	5.8	5.4				
6/21/2017				18	22	15
6/22/2017			7.5			
10/25/2017	5.9	6				
10/26/2017			7.8	19	21	13
4/10/2018	5.9	5.3		24	25	13
4/11/2018			7.4			
10/16/2018	5.8	5.6			16	
10/17/2018			7.1	21		10
3/27/2019	5.4	4.5		28		
3/28/2019			7.3		41	10
10/8/2019	6	5.9		24		
10/9/2019			7.7		39	10
4/7/2020	5.5	4				
4/8/2020			7.5	21	40	8.3
6/23/2020			7.7			
6/24/2020					47	11
6/25/2020	5.7	6.1		23		
9/29/2020	5.9	6.6		25	39	12
10/1/2020			8.1			
2/9/2021	5.8	6.2	7.7	23	38	12

Time Series

Constituent: Calcium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		12	46	5.2	
9/1/2016	42				
10/25/2016		10.9		4.64	
10/26/2016	44.3		43.3		
1/26/2017		13	51	5.5	
1/27/2017	49				
4/12/2017	45	12	47	4.9	
6/21/2017	49		51		
6/22/2017		13		5.8	
10/25/2017	49	12		6.1	
10/26/2017			55		
4/10/2018		12			
4/11/2018	44		44	6	
10/17/2018	49	11	52	5.8	
3/27/2019	47				
3/28/2019		11	52	5.6	
10/9/2019	49	11	53	5.7	
4/8/2020		11			
4/9/2020	46		47	5.3	
6/23/2020			52		
6/24/2020	44				
6/25/2020		11			
6/26/2020				5.6	
9/29/2020		11			
9/30/2020	52				
10/1/2020			52	5.7	
12/1/2020					13
2/9/2021					9.7
2/10/2021	52	9.9	48	4.8	

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				10.7		
5/7/2009					4.24	
12/3/2009				10.1	2.66	
5/25/2010				7.11	3.29	
6/2/2010						15.1
11/9/2010				8.4		
11/10/2010					3.82	14.8
5/19/2011						28.2 (o)
5/24/2011				9.07		
5/25/2011					4.92	
11/9/2011						32.8 (o)
11/10/2011				10.3	4.48	
5/18/2012				10.1		
5/30/2012					4.72	30.8 (o)
11/9/2012				8.73	5.1	
11/11/2012						24.6 (o)
5/8/2013				8.06		
5/9/2013					3.85	27.2 (o)
11/6/2013				10.2		
11/11/2013					5.26	12.7
5/20/2014				8.2		
5/21/2014					4.47	
5/29/2014						20 (o)
11/18/2014				10	6.4	
11/19/2014						19 (o)
4/7/2015					5.04	
4/14/2015				10.7		13.6
10/28/2015					6.3	
10/29/2015				10.7		
11/4/2015						12.4
6/23/2016				11	5.7	9
8/30/2016				11		
8/31/2016					5.7	5.4
10/24/2016				12		
10/25/2016					7.9	9.3
1/23/2017				11		5.1
1/24/2017					4.4	
4/11/2017				11	4.3	4.1
6/20/2017						4.1
6/21/2017				11	5.5	
10/25/2017				10	5.2	3.8
4/9/2018					3.8	3.9
4/10/2018				9.9		
10/16/2018				11	6	4.3
3/26/2019					4.6	
3/27/2019				11		4
10/7/2019						4
10/8/2019				64 (o)	6.7	
4/6/2020						4.2
4/7/2020				11	3.8	
6/24/2020	5.9	6.4	5.4			
6/25/2020					5.8	4

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
6/26/2020				12		
9/29/2020				12	5.7	4.1
9/30/2020	5.5	5				
10/1/2020			5			
2/9/2021			5.8	15	6	
2/10/2021	6.6	5.1				
2/11/2021						4.6

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	6.2	3.8				
6/30/1998	4.6	2.9				
12/2/1998	3.13	1.76				
6/8/1999	1.56	1.97				
12/7/1999	3.05	1.98				
6/15/2000	3.35	2.08				
12/12/2000	2.42	2.02				
12/5/2001	2.62	2.03				
6/26/2002	3.4	2.52				
12/3/2002	3.04	2.12				
6/11/2003	3.02	2.43				
12/10/2003	2.9	1.93				
6/15/2004	2.05	2.42				
12/14/2004	2.78	2.44				
6/2/2005	3.15	2.79				
12/14/2005	3.38	2.77				
4/5/2006	3.49	2.8				
10/30/2006	2.84	3.09				
5/10/2007	3.68	3.93				
11/17/2007	2.69	<0.021				
5/3/2008	2.85	3.52				
10/22/2008	2.99	3.15				
5/5/2009				2.61		
5/6/2009		3.49				
5/7/2009	2.96					
5/12/2009					3.96	3.5
5/13/2009			3.85			
12/1/2009		3.26				
12/3/2009			3.73			
12/4/2009	2.97			2.37		1.85
12/5/2009					3.81	
5/25/2010		3.62				1.74
5/26/2010			3.7		3.85	
6/1/2010	3.23			3.71		
11/9/2010		3.38	3.6		4.08	1.18
11/10/2010	2.86			2.69		
5/19/2011			3.79			
5/24/2011		3.62			3.63	2.51
5/25/2011	2.86			2.44		
11/9/2011				2.3		
11/10/2011		3.74				
11/11/2011			4.07			
11/12/2011	2.83				4.03	4.99
5/17/2012			3.84			
5/18/2012		3.6				
5/30/2012					3.82	6.4
5/31/2012	2.68			2.29		
11/9/2012		3.66	3.99		3.69	3.37
11/10/2012				2.46		
11/11/2012	2.63					
5/7/2013			3.94			
5/8/2013		4.16				5.67

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/13/2013	0.364			6.55	3.5	
11/6/2013		3.87	3.89		3.74	3.62
11/12/2013	2.95			2.86		
5/20/2014		4.4	3.54			5.82
5/21/2014					3.74	
5/28/2014				2.75		
5/29/2014	2.64					
11/17/2014		4.2			4.4	6.4
11/18/2014			4.2			
11/20/2014				3.4		
4/7/2015		4.53	4.09		4.38	5.02
4/14/2015	2.78			2.56		
10/28/2015		4.47	3.98		4.62	4.98
11/3/2015	2.66			2.01		
6/23/2016	3.3	4.6	4.3	1.9		
6/24/2016					5	5
8/30/2016		4.3				
8/31/2016	2.7					
9/1/2016			4		4.8	4.4
9/2/2016				2.7		
10/25/2016	3.1	5	4.6		5.4	5.1
10/26/2016				3.3		
1/24/2017	2.5	5.1				
1/26/2017				1.6	5.2	4.2
1/27/2017			3.9			
4/11/2017	2.4	4.4			4.8	3.9
4/12/2017			3.7	1.5		
6/20/2017	2.5	5				
6/21/2017				1.6	5.2	4.1
6/22/2017			3.9			
10/25/2017	2.3	5.3				
10/26/2017			3.7	1.6	4.7	4
4/10/2018	2.4	5.1		1.8	4.8	4.1
4/11/2018			3.8			
10/16/2018	2.5	5.3			4.5	
10/17/2018			4	2.1		4
3/27/2019	2.5	4.3		1.8		
3/28/2019			3.7		4.6	3.4
10/8/2019	2.6	5.7		9.4 (o)		
10/9/2019			3.8		4.7	3.3
4/7/2020	2.9	3.7				
4/8/2020			3.9	1.9	5.1	3.7
6/23/2020			4.2			
6/24/2020					5.9	4
6/25/2020	2.8	4.2		1.9		
9/29/2020	2.7	4.6		2.5	5.2	3.4
10/1/2020			3.9			
2/9/2021	3	5.1	4.7	2.7	5.7	3.1

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		7.52			
4/5/2006		7.38			
10/30/2006		6.9			
5/10/2007		8.88			
11/17/2007		13.5 (o)			
5/2/2008		12.9 (o)			
10/22/2008		7.97			
5/12/2009	8.89				
5/13/2009				3.37	
5/14/2009		7.68	6.38		
12/1/2009		6.66			
12/3/2009			5.96	3.49	
12/4/2009	9.43				
5/25/2010	8.49				
5/26/2010		6	5.37	3.35	
11/9/2010			<0.071 (o)	3.34	
11/10/2010	8.77	6.07			
5/18/2011			5.4		
5/19/2011	8.11			3.25	
5/25/2011		5.7			
11/11/2011		6.23	5.58	3.57	
11/12/2011	12.3 (o)				
5/17/2012	8.4	6.06	5.15	3.27	
11/9/2012		4.9	5.2	3.45	
11/10/2012	8.13				
5/7/2013	8.11		5.56	3.35	
5/8/2013		5.85			
11/5/2013	7.82	5.44	5.24		
11/6/2013				3.45	
5/21/2014		5.96	7.34 (o)	3.18	
5/28/2014	6.99				
11/17/2014		7			
11/18/2014			6.1	4	
11/19/2014	9				
4/7/2015		6.08	5.62	4.22	
4/15/2015	8.14				
10/28/2015		5.02	5.58	4.87	
10/29/2015	8.17				
6/23/2016		5.4	6.2	5.6	
6/24/2016	8.4				
8/31/2016		5.1	5.6	5.4	
9/1/2016	7.8				
10/25/2016		6.2		6.4	
10/26/2016	8.9		7.1		
1/26/2017		5.1	5.8	5.3	
1/27/2017	7.3				
4/12/2017	7	4.9	5.6	5.2	
6/21/2017	7.2		5.8		
6/22/2017		5.1		5.5	
10/25/2017	7	5.1		5.3	
10/26/2017			5.5		
4/10/2018		5			

Time Series

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
4/11/2018	6.9		5.7	5.1	
10/17/2018	7.1	5.8	6	5.3	
3/27/2019	6.6				
3/28/2019		5.1	5.7	4.8	
10/9/2019	6.7	4.6	5.7	5.2	
4/8/2020		4.4			
4/9/2020	7.3		7.7	5.6	
6/23/2020			7		
6/24/2020	7.2				
6/25/2020		4.6			
6/26/2020				5.4	
9/29/2020		4.1			
9/30/2020	6.9				
10/1/2020			6	5.5	
12/1/2020					12
2/9/2021					11
2/10/2021	7.8	4.5	6.4	5.9	

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				0.0012 (J)		
8/31/2016					<0.002	<0.002
10/24/2016				0.0011 (J)		
10/25/2016					<0.002	<0.002
1/23/2017				<0.002		0.01
1/24/2017					<0.002	
4/11/2017				0.0011 (J)	<0.002	<0.002
6/20/2017						<0.002
6/21/2017				<0.002	<0.002	
10/25/2017				<0.002	<0.002	<0.002
4/9/2018					<0.002	0.0019 (J)
4/10/2018				0.0013 (J)		
10/16/2018				<0.002	<0.002	<0.002
8/19/2019					0.0016 (J)	
8/20/2019				0.0026		
8/21/2019						<0.002
10/7/2019						<0.002
10/8/2019				<0.002	<0.002	
4/6/2020						<0.002
4/7/2020				0.0015 (J)	<0.002	
8/18/2020				<0.002	<0.002	
8/19/2020						<0.002
8/20/2020	<0.002	<0.002				
8/21/2020			<0.002			
9/29/2020				<0.002	<0.002	<0.002
9/30/2020	<0.002	<0.002				
10/1/2020			<0.002			
2/9/2021			<0.002	<0.002	<0.002	
2/10/2021	<0.002	<0.002				
2/11/2021						<0.002

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		0.0012 (J)				
8/31/2016	0.003					
9/1/2016			0.0038		0.0017 (J)	<0.002
9/2/2016				0.0087		
10/25/2016	0.0028 (J)	0.0014 (J)	0.0042 (J)		0.0023 (J)	<0.002
10/26/2016				<0.002		
1/24/2017	0.0031	0.0012 (J)				
1/26/2017				<0.002	0.0017 (J)	0.0016 (J)
1/27/2017			0.005			
4/11/2017	0.0029	<0.002			0.0019 (J)	0.0013 (J)
4/12/2017			0.0048	<0.002		
6/20/2017	0.0037	<0.002				
6/21/2017				<0.002	0.0017 (J)	<0.002
6/22/2017			0.0047			
10/25/2017	0.0031	<0.002				
10/26/2017			0.0043	<0.002	0.0013 (J)	<0.002
4/10/2018	0.0036	0.0012 (J)		<0.002	0.0019 (J)	<0.002
4/11/2018			0.0051			
10/16/2018	0.0035	0.0012 (J)			0.0013 (J)	
10/17/2018			0.0051	<0.002		<0.002
8/20/2019	0.0039	0.0032			0.0025	
8/21/2019			0.0073	0.0017 (J)		<0.002
10/8/2019	0.0031	<0.002		<0.002		
10/9/2019			0.006		0.0027	0.0021
4/7/2020	0.0023	<0.002				
4/8/2020			0.0046	<0.002	0.0021	<0.002
8/18/2020	0.0027	<0.002				<0.002
8/19/2020			0.0049	<0.002	0.0021	
9/29/2020	0.003	<0.002		<0.002	0.002	<0.002
10/1/2020			0.0047			
2/9/2021	0.0028	<0.002	0.0046	<0.002	0.0018 (J)	<0.002

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		0.0033	<0.002	0.011	
9/1/2016	<0.002				
10/25/2016		0.0029 (J)		0.0109	
10/26/2016	<0.002		<0.002		
1/26/2017		0.0033	<0.002	0.011	
1/27/2017	<0.002				
4/12/2017	<0.002	0.0036	<0.002	0.0096	
6/21/2017	<0.002		<0.002		
6/22/2017		0.0036		0.011	
10/25/2017	<0.002	0.0028		0.0094	
10/26/2017			<0.002		
4/10/2018		0.0038			
4/11/2018	<0.002		<0.002	0.01	
10/17/2018	<0.002	0.0036	<0.002	0.0096	
8/21/2019	<0.002	0.0046	0.0015 (J)	0.0097	
10/9/2019	<0.002	0.0042	0.0017 (J)	0.0084	
4/8/2020		0.0027			
4/9/2020	<0.002		<0.002	0.0069	
8/18/2020		0.0031			
8/19/2020				0.008	
8/20/2020	<0.002		<0.002		
9/29/2020		0.0031			
9/30/2020	<0.002				
10/1/2020			<0.002	0.0075	
12/1/2020					<0.002
2/9/2021					<0.002
2/10/2021	<0.002	0.003	<0.002	0.007	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				<0.0025		
8/31/2016					<0.0025	<0.0025
10/24/2016				<0.0025		
10/25/2016					<0.0025	<0.0025
1/23/2017				<0.0025		<0.0025
1/24/2017					<0.0025	
4/11/2017				<0.0025	<0.0025	<0.0025
6/20/2017						<0.0025
6/21/2017				<0.0025	<0.0025	
10/25/2017				<0.0025	<0.0025	<0.0025
4/9/2018					<0.0025	<0.0025
4/10/2018				<0.0025		
10/16/2018				<0.0025	<0.0025	<0.0025
8/19/2019					0.00029 (J)	
8/20/2019				0.00019 (J)		
8/21/2019						0.00022 (J)
10/7/2019						<0.0025
10/8/2019				<0.0025	0.00011 (J)	
1/15/2020		0.0064				
2/11/2020		<0.0025				
4/6/2020						<0.0025
4/7/2020				0.00029 (J)	<0.0025	
6/24/2020	0.00053 (J)	0.0049	0.0049			
6/25/2020					<0.0025	<0.0025
6/26/2020				0.00013 (J)		
8/18/2020				0.00019 (J)	<0.0025	
8/19/2020						<0.0025
8/20/2020	0.00056 (J)	0.005				
8/21/2020			0.0018 (J)			
9/29/2020				0.00016 (J)	<0.0025	<0.0025
9/30/2020	0.0011 (J)	0.0046				
10/1/2020			0.0018 (J)			
2/9/2021			0.00047 (J)	<0.0025	<0.0025	
2/10/2021	0.00055 (J)	0.0053				
2/11/2021						<0.0025

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.0025				
8/31/2016	<0.0025					
9/1/2016			<0.0025		<0.0025	0.037
9/2/2016				0.03		
10/25/2016	<0.0025	<0.0025	<0.0025		<0.0025	0.0144
10/26/2016				0.0036 (J)		
1/24/2017	<0.0025	<0.0025				
1/26/2017				0.011	<0.0025	0.022
1/27/2017			<0.0025			
4/11/2017	<0.0025	<0.0025			<0.0025	0.026
4/12/2017			<0.0025	<0.0025		
6/20/2017	<0.0025	<0.0025				
6/21/2017				<0.0025	<0.0025	0.027
6/22/2017			<0.0025			
10/25/2017	<0.0025	<0.0025				
10/26/2017			<0.0025	<0.0025	<0.0025	0.021
4/10/2018	<0.0025	<0.0025		0.00045 (J)	<0.0025	0.021
4/11/2018			<0.0025			
10/16/2018	<0.0025	<0.0025			<0.0025	
10/17/2018			<0.0025	<0.0025		0.014
8/20/2019	0.00018 (J)	0.00012 (J)			0.00016 (J)	
8/21/2019			0.00017 (J)	0.00048 (J)		0.018
10/8/2019	<0.0025	<0.0025		0.00019 (J)		
10/9/2019			0.00019 (J)		0.00026 (J)	0.017
4/7/2020	<0.0025	0.00014 (J)				
4/8/2020			<0.0025	0.00026 (J)	<0.0025	0.016
6/23/2020			0.00013 (J)			
6/24/2020					0.00013 (J)	0.024
6/25/2020	<0.0025	<0.0025		0.00022 (J)		
8/18/2020	0.00022 (J)	<0.0025				0.03
8/19/2020			0.00015 (J)	0.0004 (J)	<0.0025	
9/29/2020	<0.0025	<0.0025		0.0003 (J)	<0.0025	0.027
10/1/2020			<0.0025			
2/9/2021	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.025

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.0025	<0.0025	<0.0025	
9/1/2016	0.0014 (J)				
10/25/2016		<0.0025		<0.0025	
10/26/2016	0.0013 (J)		<0.0025		
1/26/2017		<0.0025	<0.0025	<0.0025	
1/27/2017	0.0021 (J)				
4/12/2017	0.0015 (J)	<0.0025	<0.0025	<0.0025	
6/21/2017	0.0018 (J)		<0.0025		
6/22/2017		<0.0025		<0.0025	
10/25/2017	0.0013 (J)	<0.0025		<0.0025	
10/26/2017			<0.0025		
4/10/2018		<0.0025			
4/11/2018	0.0014 (J)		<0.0025	<0.0025	
10/17/2018	0.0012 (J)	<0.0025	<0.0025	<0.0025	
8/21/2019	0.0012	8.6E-05 (J)	0.00021 (J)	<0.0025	
10/9/2019	0.00099	0.00034 (J)	0.00041 (J)	0.00021 (J)	
4/8/2020		<0.0025			
4/9/2020	0.00091 (J)		0.00013 (J)	0.00015 (J)	
6/23/2020			0.00017 (J)		
6/24/2020	0.00115 (JD)				
6/25/2020		<0.0025			
6/26/2020				<0.0025	
8/18/2020		<0.0025			
8/19/2020				0.00013 (J)	
8/20/2020	0.0014 (JD)		0.00023 (J)		
9/29/2020		<0.0025			
9/30/2020	0.00125 (JD)				
10/1/2020			0.00021 (J)	<0.0025	
12/1/2020					0.0058
2/9/2021					0.00088 (J)
2/10/2021	0.0011 (J)	<0.0025	0.00015 (J)	<0.0025	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				1.1		
8/31/2016					0.788	0.949 (U)
10/24/2016				0.808 (U)		
10/25/2016					0.503 (U)	1.13
1/23/2017				0.121 (U)		0.426
1/24/2017					0.369	
4/11/2017				0.378 (U)	0.71	0.604
6/20/2017						0.974
6/21/2017				0.511	0.124 (U)	
10/25/2017				0.587	0.981	0.409 (U)
4/9/2018					0.157 (U)	0.306 (U)
4/10/2018				0.513		
10/16/2018				0.53	0.305 (U)	0.701
8/19/2019					0.204 (U)	
8/20/2019				0.759		
8/21/2019						0.0663 (U)
10/7/2019						0.447 (U)
10/8/2019				0.76	0.398 (U)	
4/6/2020						0.286 (U)
4/7/2020				0.622	-0.0414 (U)	
8/18/2020				0.587	0.38 (U)	
8/19/2020						-0.0549 (U)
8/20/2020	-0.137 (U)	0.624 (U)				
8/21/2020			0.285 (U)			
9/29/2020				0.765	0.403 (U)	0.134 (U)
9/30/2020	0.539 (U)	0.532				
10/1/2020			0.0114 (U)			
2/9/2021			0.18 (U)	1.16	0.394 (U)	
2/10/2021	0.83	0.932				
2/11/2021						0.413 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		0.505 (U)				
8/31/2016	0.226 (U)					
9/1/2016			0.153 (U)		0.568	-0.081 (U)
9/2/2016				2.11		
10/25/2016	0.273 (U)	0.177 (U)	0.328 (U)		1.57	0.675 (U)
10/26/2016				2.45		
1/24/2017	0.11 (U)	0.107 (U)				
1/26/2017				0.276 (U)	0.255 (U)	0.18 (U)
1/27/2017			-0.0761 (U)			
4/11/2017	0.358 (U)	-0.0587 (U)			0.334 (U)	0.547
4/12/2017			0.112 (U)	0.387 (U)		
6/20/2017	0.265 (U)	0.503				
6/21/2017				0.194 (U)	0.518	0.38
6/22/2017			0.414			
10/25/2017	0.5	0.512				
10/26/2017			0.334 (U)	0.519	0.79	1.48
4/10/2018	0.323	0.262 (U)		0.604	0.394	0.39
4/11/2018			0.17 (U)			
10/16/2018	0.798	0.989			0.0598 (U)	
10/17/2018			0.38 (U)	0.46 (U)		0.781
8/20/2019	0.352 (U)	-0.0925 (U)			0.227 (U)	
8/21/2019			0.352 (U)	0.491		-0.0366 (U)
10/8/2019	0.419 (U)	0.348 (U)		0.421 (U)		
10/9/2019			-0.38 (U)		-0.0245 (U)	0.118 (U)
4/7/2020	0.0354 (U)	0.198 (U)				
4/8/2020			-0.0401 (U)	0.309 (U)	0.28 (U)	0.402 (U)
8/18/2020	0.132 (U)	1.12				0.423
8/19/2020			-0.0271 (U)	0.538	0.306 (U)	
9/29/2020	-0.0479 (U)	-0.146 (U)		0.394 (U)	-0.0246 (U)	0.175 (U)
10/1/2020			0.172 (U)			
2/9/2021	-0.187 (U)	-0.312 (U)	0.163 (U)	0.669	0.46	0.332 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		-0.106 (U)	0.218 (U)	0.279 (U)	
9/1/2016	0.495 (U)				
10/25/2016		0.518 (U)		0.393 (U)	
10/26/2016	0.606 (U)		0.335 (U)		
1/26/2017		0.37	0.345 (U)	0.0879 (U)	
1/27/2017	0.641				
4/12/2017	-0.0936 (U)	0.316 (U)	0.37 (U)	0.219 (U)	
6/21/2017	0.5		0.144 (U)		
6/22/2017		0.229 (U)		0.552	
10/25/2017	0.345 (U)	0.281 (U)		0.388 (U)	
10/26/2017			0.51		
4/10/2018		0.492			
4/11/2018	0.331 (U)		0.362	0.322	
10/17/2018	0.62	0.495 (U)	0.385 (U)	0.327 (U)	
8/21/2019	0.693	0.0805 (U)	0.125 (U)	0.0554 (U)	
10/9/2019	0.0684 (U)	0.552	-0.164 (U)	-0.238 (U)	
4/8/2020		0.366 (U)			
4/9/2020	0.419 (U)		0.255 (U)	0.334 (U)	
8/18/2020		0.376 (U)			
8/19/2020				0.124 (U)	
8/20/2020	0.191 (U)		0.14 (U)		
9/29/2020		0.334 (U)			
9/30/2020	0.0811 (U)				
10/1/2020			0.512 (U)	0.501	
12/1/2020					-0.0123 (U)
2/9/2021					0.0311 (U)
2/10/2021	0.568	0.412	0.384	0.515	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				<0.1		
8/31/2016					<0.1	0.12 (J)
10/24/2016				0.1 (J)		
10/25/2016					0.08 (J)	0.53
1/23/2017				<0.1		0.4
1/24/2017					<0.1	
4/11/2017				<0.1	<0.1	0.31
6/20/2017						0.27
6/21/2017				<0.1	<0.1	
10/25/2017				<0.1	<0.1	0.29
4/9/2018					<0.1	0.25
4/10/2018				<0.1		
10/16/2018				0.1 (J)	<0.1	0.33
3/26/2019					<0.1	
3/27/2019				0.031 (J)		0.15 (J)
8/19/2019					<0.1	
8/20/2019				0.049 (J)		
8/21/2019						0.35
10/7/2019						0.12 (J)
10/8/2019				0.27 (J)	0.033 (J)	
4/6/2020						0.28
4/7/2020				0.082 (J)	0.086 (J)	
6/24/2020	0.18	0.041 (J)	0.082 (J)			
6/25/2020					0.03 (J)	0.17
6/26/2020				0.051 (J)		
8/18/2020				0.041 (J)	<0.1	
8/19/2020						0.12
8/20/2020	<0.1	<0.1				
8/21/2020			0.051 (J)			
9/29/2020				0.06 (J)	0.032 (J)	0.13
9/30/2020	0.064 (J)	0.028 (J)				
10/1/2020			0.071 (J)			
2/9/2021			0.083 (J)	0.07 (J)	0.036 (J)	
2/10/2021	0.099 (J)	0.028 (J)				
2/11/2021						0.25

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.1				
8/31/2016	<0.1					
9/1/2016			<0.1		<0.1	<0.1
9/2/2016				0.21		
10/25/2016	0.14 (J)	0.09 (J)	0.1 (J)		0.08 (J)	0.08 (J)
10/26/2016				0.21 (J)		
1/24/2017	<0.1	<0.1				
1/26/2017				0.097 (J)	<0.1	<0.1
1/27/2017			<0.1			
4/11/2017	<0.1	<0.1			<0.1	<0.1
4/12/2017			<0.1	<0.1		
6/20/2017	<0.1	<0.1				
6/21/2017				<0.1	<0.1	<0.1
6/22/2017			<0.1			
10/25/2017	<0.1	<0.1				
10/26/2017			<0.1	<0.1	<0.1	<0.1
4/10/2018	<0.1	<0.1		<0.1	<0.1	<0.1
4/11/2018			<0.1			
10/16/2018	0.1 (J)	<0.1			<0.1	
10/17/2018			<0.1	0.1 (J)		<0.1
3/27/2019	0.034 (J)	0.026 (J)		0.05 (J)		
3/28/2019			0.03 (J)		<0.1	<0.1
8/20/2019	0.053 (J)	0.047 (J)			0.033 (J)	
8/21/2019			0.047 (J)	0.1 (J)		0.031 (J)
10/8/2019	0.056 (J)	0.05 (J)		0.33 (J)		
10/9/2019			0.053 (J)		0.031 (J)	0.03 (J)
4/7/2020	0.098 (J)	0.072 (J)				
4/8/2020			0.071 (J)	0.12	0.051 (J)	0.053 (J)
6/23/2020			0.04 (J)			
6/24/2020					0.038 (J)	<0.1
6/25/2020	0.06 (J)	0.042 (J)		0.067 (J)		
8/18/2020	<0.1	<0.1				<0.1
8/19/2020			<0.1	0.081 (J)	<0.1	
9/29/2020	0.065 (J)	0.051 (J)		0.089 (J)	0.026 (J)	0.029 (J)
10/1/2020			0.048 (J)			
2/9/2021	0.084 (J)	0.055 (J)	0.051 (J)	0.094 (J)	0.056 (J)	<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.1	0.11 (J)	<0.1	
9/1/2016	0.083 (J)				
10/25/2016		0.02 (J)		0.2 (J)	
10/26/2016	0.32 (o)		0.43 (o)		
1/26/2017		<0.1	0.13 (J)	<0.1	
1/27/2017	0.097 (J)				
4/12/2017	0.088 (J)	<0.1	0.13 (J)	<0.1	
6/21/2017	0.096 (J)		0.14 (J)		
6/22/2017		<0.1		<0.1	
10/25/2017	0.092 (J)	<0.1		<0.1	
10/26/2017			0.13 (J)		
4/10/2018		<0.1			
4/11/2018	0.09 (J)		0.13 (J)	<0.1	
10/17/2018	0.11 (J)	<0.1	0.16 (J)	<0.1	
3/27/2019	0.05 (J)				
3/28/2019		<0.1	0.089 (J)	<0.1	
8/21/2019	0.079 (J)	<0.1	0.12 (J)	0.03 (J)	
10/9/2019	0.068 (J)	0.032 (J)	0.085 (J)	0.038 (J)	
4/8/2020		0.062 (J)			
4/9/2020	0.11		0.16	0.066 (J)	
6/23/2020			0.12		
6/24/2020	0.094 (J)				
6/25/2020		<0.1			
6/26/2020				0.027 (J)	
8/18/2020		<0.1			
8/19/2020				<0.1	
8/20/2020	<0.1		0.054 (J)		
9/29/2020		0.027 (J)			
9/30/2020	0.082 (J)				
10/1/2020			0.14	0.041 (J)	
12/1/2020					<0.1
2/9/2021					0.057 (J)
2/10/2021	0.12	0.033 (J)	0.17	0.051 (J)	

Time Series

Constituent: Lead (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				<0.001		
5/7/2009					<0.001	
12/3/2009				<0.001	<0.001	
5/25/2010				<0.001	<0.001	
6/2/2010						<0.001
11/9/2010				<0.001		
11/10/2010					<0.001	<0.001
5/19/2011						<0.001
5/24/2011				<0.001		
5/25/2011					<0.001	
11/9/2011						<0.001
11/10/2011				<0.001	<0.001	
5/18/2012				<0.001		
5/30/2012					<0.001	<0.001
11/9/2012				<0.001	<0.001	
11/11/2012						<0.001
5/8/2013				<0.001		
5/9/2013					<0.001	<0.001
11/6/2013				<0.001		
11/11/2013					<0.001	<0.001
5/20/2014				<0.001		
5/21/2014					<0.001	
5/29/2014						<0.001
11/18/2014				<0.001	<0.001	
11/19/2014						<0.001
4/7/2015					<0.001	
4/14/2015				<0.001		<0.001
10/28/2015					<0.001	
10/29/2015				<0.001		
11/4/2015						<0.001
6/23/2016				<0.001	<0.001	<0.001
8/30/2016				<0.001		
8/31/2016					<0.001	<0.001
10/24/2016				0.0002 (J)		
10/25/2016					<0.001	<0.001
1/23/2017				<0.001		0.0013
1/24/2017					<0.001	
4/11/2017				<0.001	<0.001	<0.001
6/20/2017						<0.001
6/21/2017				<0.001	<0.001	
10/25/2017				<0.001	<0.001	<0.001
4/9/2018					<0.001	<0.001
4/10/2018				<0.001		
10/16/2018				<0.001	<0.001	<0.001
3/26/2019					<0.001	
3/27/2019				<0.001		<0.001
8/19/2019					<0.001	
8/20/2019				<0.001		
8/21/2019						0.00019 (J)
10/7/2019						<0.001
10/8/2019				<0.001	0.00013 (J)	
4/6/2020						<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
4/7/2020				<0.001	<0.001	
8/18/2020				<0.001	<0.001	
8/19/2020						<0.001
8/20/2020	<0.001	<0.001				
8/21/2020			<0.001			
9/29/2020				<0.001	<0.001	<0.001
9/30/2020	<0.001	<0.001				
10/1/2020			<0.001			
2/9/2021			<0.001	<0.001	<0.001	
2/10/2021	<0.001	<0.001				
2/11/2021						<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	0.162 (o)	<0.001				
6/30/1998	0.013	<0.001				
12/2/1998	0.01	0.002				
6/8/1999	0.004	<0.001				
12/7/1999	0.004	<0.001				
6/15/2000	0.004	<0.001				
12/12/2000	0.00378	<0.001				
12/5/2001	0.003	<0.001				
6/26/2002	0.00815	0.00539				
12/3/2002	0.008	<0.001				
6/11/2003	<0.001	<0.001				
12/10/2003	<0.001	<0.001				
6/15/2004	<0.001	<0.001				
12/14/2004	<0.001	0.013 (o)				
6/2/2005	<0.001	<0.001				
12/14/2005	<0.001	<0.001				
4/5/2006	<0.001	<0.001				
10/30/2006	<0.001	<0.001				
5/10/2007	<0.001	<0.001				
11/17/2007	<0.001	<0.001				
5/3/2008	<0.001	<0.001				
10/22/2008	<0.001	<0.001				
5/5/2009				<0.001		
5/6/2009		<0.001				
5/7/2009	<0.001					
5/12/2009					<0.001	<0.001
5/13/2009			<0.001			
12/1/2009		<0.001				
12/3/2009			<0.001			
12/4/2009	<0.001			<0.001		<0.001
12/5/2009					<0.001	
5/25/2010		<0.001				<0.001
5/26/2010			<0.001		<0.001	
6/1/2010	<0.001			<0.001		
11/9/2010		<0.001	<0.001		<0.001	<0.001
11/10/2010	<0.001			<0.001		
5/19/2011			<0.001			
5/24/2011		<0.001			<0.001	<0.001
5/25/2011	<0.001			<0.001		
11/9/2011				<0.001		
11/10/2011		<0.001				
11/11/2011			<0.001			
11/12/2011	<0.001				<0.001	<0.001
5/17/2012			<0.001			
5/18/2012		<0.001				
5/30/2012					<0.001	<0.001
5/31/2012	0.0005 (J)			0.0008 (J)		
11/9/2012		<0.001	<0.001		<0.001	<0.001
11/10/2012				<0.001		
11/11/2012	<0.001					
5/7/2013			<0.001			
5/8/2013		<0.001				<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/13/2013	<0.001			0.025 (o)	<0.001	
11/6/2013		<0.001	<0.001		<0.001	<0.001
11/12/2013	<0.001			<0.001		
5/20/2014		<0.001	<0.001			<0.001
5/21/2014					<0.001	
5/28/2014				<0.001		
5/29/2014	<0.001					
11/17/2014		<0.001			<0.001	<0.001
11/18/2014			<0.001			
11/20/2014				<0.001		
4/7/2015		<0.001	<0.001		<0.001	<0.001
4/14/2015	<0.001			<0.001		
10/28/2015		<0.001	<0.001		<0.001	<0.001
11/3/2015	<0.001			<0.001		
6/23/2016	<0.001	<0.001	<0.001	<0.001		
6/24/2016					<0.001	<0.001
8/30/2016		<0.001				
8/31/2016	<0.001					
9/1/2016			<0.001		<0.001	<0.001
9/2/2016				0.0056		
10/25/2016	<0.001	<0.001	<0.001		<0.001	<0.001
10/26/2016				0.0003 (J)		
1/24/2017	<0.001	<0.001				
1/26/2017				<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	<0.001	<0.001			<0.001	<0.001
4/12/2017			<0.001	<0.001		
6/20/2017	<0.001	<0.001				
6/21/2017				<0.001	<0.001	<0.001
6/22/2017			<0.001			
10/25/2017	<0.001	<0.001				
10/26/2017			<0.001	<0.001	<0.001	<0.001
4/10/2018	<0.001	<0.001		<0.001	<0.001	<0.001
4/11/2018			<0.001			
10/16/2018	<0.001	<0.001			<0.001	
10/17/2018			<0.001	0.0016		<0.001
3/27/2019	<0.001	<0.001		<0.001		
3/28/2019			<0.001		<0.001	<0.001
8/20/2019	0.00014 (J)	0.00014 (J)			<0.001	
8/21/2019			<0.001	<0.001		<0.001
10/8/2019	0.001	0.00016 (J)		<0.001		
10/9/2019			<0.001		<0.001	<0.001
4/7/2020	<0.001	<0.001				
4/8/2020			0.031	<0.001	<0.001	<0.001
8/18/2020	0.00019 (J)	0.00013 (J)				<0.001
8/19/2020			0.00013 (J)	<0.001	<0.001	
9/29/2020	<0.001	<0.001		<0.001	<0.001	<0.001
10/1/2020			<0.001			
2/9/2021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		<0.001			
4/5/2006		<0.001			
10/30/2006		<0.001			
5/10/2007		0.0032			
11/17/2007		<0.001			
5/2/2008		0.008 (o)			
10/22/2008		<0.001			
5/12/2009	<0.001				
5/13/2009				<0.001	
5/14/2009		0.00083	<0.001		
12/1/2009		<0.001			
12/3/2009			<0.001	<0.001	
12/4/2009	<0.001				
5/25/2010	<0.001				
5/26/2010		<0.001	<0.001	<0.001	
11/9/2010			<0.001	<0.001	
11/10/2010	<0.001	<0.001			
5/18/2011			<0.001		
5/19/2011	<0.001			<0.001	
5/25/2011		<0.001			
11/11/2011		<0.001	<0.001	<0.001	
11/12/2011	<0.001				
5/17/2012	<0.001	<0.001	<0.001	<0.001	
11/9/2012		<0.001	<0.001	<0.001	
11/10/2012	<0.001				
5/7/2013	<0.001		<0.001	<0.001	
5/8/2013		<0.001			
11/5/2013	<0.001	<0.001	<0.001		
11/6/2013				<0.001	
5/21/2014		<0.001	<0.001	<0.001	
5/28/2014	<0.001				
11/17/2014		<0.001			
11/18/2014			<0.001	<0.001	
11/19/2014	<0.001				
4/7/2015		<0.001	<0.001	<0.001	
4/15/2015	<0.001				
10/28/2015		<0.001	<0.001	<0.001	
10/29/2015	<0.001				
6/23/2016		<0.001	<0.001	<0.001	
6/24/2016	<0.001				
8/31/2016		<0.001	<0.001	<0.001	
9/1/2016	<0.001				
10/25/2016		<0.001		<0.001	
10/26/2016	0.0002 (J)		<0.001		
1/26/2017		<0.001	<0.001	<0.001	
1/27/2017	<0.001				
4/12/2017	<0.001	<0.001	<0.001	<0.001	
6/21/2017	<0.001		<0.001		
6/22/2017		<0.001		<0.001	
10/25/2017	<0.001	<0.001		<0.001	
10/26/2017			<0.001		
4/10/2018		<0.001			

Time Series

Constituent: Lead (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
4/11/2018	<0.001		<0.001	<0.001	
10/17/2018	<0.001	<0.001	<0.001	<0.001	
3/27/2019	<0.001				
3/28/2019		<0.001	<0.001	<0.001	
8/21/2019	<0.001	<0.001	<0.001	<0.001	
10/9/2019	<0.001	<0.001	0.00019 (J)	0.00016 (J)	
4/8/2020		<0.001			
4/9/2020	<0.001		<0.001	<0.001	
8/18/2020		<0.001			
8/19/2020				<0.001	
8/20/2020	0.00028 (J)		<0.001		
9/29/2020		<0.001			
9/30/2020	0.0002 (J)				
10/1/2020			<0.001	<0.001	
12/1/2020					<0.001
2/9/2021					<0.001
2/10/2021	<0.001	<0.001	<0.001	<0.001	

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				0.0052		
8/31/2016					0.0053	0.0053
10/24/2016				<0.05 (o)		
10/25/2016					0.0048 (J)	<0.005
1/23/2017				0.0039 (J)		0.0043 (J)
1/24/2017					0.0032 (J)	
4/11/2017				0.004 (J)	0.0036 (J)	<0.005
6/20/2017						0.0042 (J)
6/21/2017				0.0041 (J)	0.0052	
10/25/2017				0.0056	0.0059	0.0061
4/9/2018					0.0056	0.0052
4/10/2018				0.007		
10/16/2018				0.0045 (J)	0.0057	0.0052
8/19/2019					0.0058	
8/20/2019				0.0053		
8/21/2019						<0.005
10/7/2019						0.007
10/8/2019				0.0078	0.0099	
4/6/2020						<0.005
4/7/2020				0.0036 (J)	0.0036 (J)	
6/24/2020	0.0046 (J)	0.013	<0.005			
6/25/2020					0.0067	0.0071
6/26/2020				0.0061		
8/18/2020				0.0039 (J)	0.0042 (J)	
8/19/2020						<0.005
8/20/2020	<0.005	0.012				
8/21/2020			<0.005			
9/29/2020				0.0048 (J)	0.0052	0.0044 (J)
9/30/2020	0.0055	0.012				
10/1/2020			<0.005			
2/9/2021			<0.005	0.0051	0.0054	
2/10/2021	0.0046 (J)	0.014				
2/11/2021						<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.005				
8/31/2016	<0.005					
9/1/2016			<0.005		<0.005	<0.005
9/2/2016				0.0045 (J)		
10/25/2016	<0.005	<0.005	<0.005		<0.005	<0.005
10/26/2016				0.0025 (J)		
1/24/2017	<0.005	<0.005				
1/26/2017				<0.005	<0.005	<0.005
1/27/2017			<0.005			
4/11/2017	<0.005	<0.005			<0.005	<0.005
4/12/2017			<0.005	<0.005		
6/20/2017	<0.005	<0.005				
6/21/2017				<0.005	<0.005	<0.005
6/22/2017			<0.005			
10/25/2017	<0.005	<0.005				
10/26/2017			<0.005	<0.005	<0.005	<0.005
4/10/2018	<0.005	<0.005		0.0029 (J)	0.0031 (J)	0.0023 (J)
4/11/2018			0.0015 (J)			
10/16/2018	0.0017 (J)	<0.005			0.0016 (J)	
10/17/2018			0.0011 (J)	<0.005		0.0014 (J)
8/20/2019	<0.005	<0.005			<0.005	
8/21/2019			<0.005	<0.005		<0.005
10/8/2019	0.0047 (J)	0.0055		0.004 (J)		
10/9/2019			0.0055		0.0076	0.0071
4/7/2020	<0.005	<0.005				
4/8/2020			<0.005	<0.005	<0.005	<0.005
6/23/2020			<0.005			
6/24/2020					<0.005	<0.005
6/25/2020	<0.005	<0.005		0.004 (J)		
8/18/2020	<0.005	<0.005				<0.005
8/19/2020			<0.005	<0.005	<0.005	
9/29/2020	<0.005	<0.005		<0.005	<0.005	<0.005
10/1/2020			<0.005			
2/9/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.005	0.0039 (J)	<0.005	
9/1/2016	0.0033 (J)				
10/25/2016		0.0024 (J)		<0.005	
10/26/2016	0.0037 (J)		0.0025 (J)		
1/26/2017		0.0033 (J)	0.0035 (J)	<0.005	
1/27/2017	0.0048 (J)				
4/12/2017	0.0039 (J)	<0.005	<0.005	<0.005	
6/21/2017	0.0037 (J)		<0.005		
6/22/2017		<0.005		<0.005	
10/25/2017	0.0047 (J)	0.005		<0.005	
10/26/2017			0.0041 (J)		
4/10/2018		0.005			
4/11/2018	0.0062		0.0041 (J)	<0.005	
10/17/2018	0.0049 (J)	0.0025 (J)	0.0037 (J)	<0.005	
8/21/2019	0.0036 (J)	0.0034 (J)	<0.005	<0.005	
10/9/2019	0.013	0.0083	0.0077	0.0061	
4/8/2020		<0.005			
4/9/2020	<0.005		<0.005	<0.005	
6/23/2020			0.0042 (J)		
6/24/2020	0.0047 (J)				
6/25/2020		0.0046 (J)			
6/26/2020				<0.005	
8/18/2020		<0.005			
8/19/2020				<0.005	
8/20/2020	<0.005		<0.005		
9/29/2020		<0.005			
9/30/2020	0.0048 (J)				
10/1/2020			0.0035 (J)	<0.005	
12/1/2020					<0.005
2/9/2021					<0.005
2/10/2021	0.0041 (J)	<0.005	<0.005	<0.005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				<0.0002		
8/31/2016					<0.0002	<0.0002
10/24/2016				<0.0002		
10/25/2016					<0.0002	<0.0002
1/23/2017				<0.0002		<0.0002
1/24/2017					<0.0002	
4/11/2017				<0.0002	<0.0002	<0.0002
6/20/2017						<0.0002
6/21/2017				<0.0002	<0.0002	
10/25/2017				<0.0002	<0.0002	<0.0002
4/9/2018					<0.0002	<0.0002
4/10/2018				7.2E-05 (J)		
10/16/2018				<0.0002	<0.0002	<0.0002
8/19/2019					<0.0002	
8/20/2019				<0.0002		
8/21/2019						<0.0002
4/6/2020						<0.0002
4/7/2020				<0.0002	<0.0002	
8/18/2020				<0.0002	<0.0002	
8/19/2020						<0.0002
8/20/2020	<0.0002	<0.0002				
8/21/2020			<0.0002			

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.0002				
8/31/2016	<0.0002					
9/1/2016			<0.0002		8.8E-05 (J)	<0.0002
9/2/2016				<0.0002		
10/25/2016	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
10/26/2016				<0.0002		
1/24/2017	<0.0002	<0.0002				
1/26/2017				<0.0002	7.9E-05 (J)	<0.0002
1/27/2017			7.7E-05 (J)			
4/11/2017	<0.0002	<0.0002			<0.0002	<0.0002
4/12/2017			<0.0002	<0.0002		
6/20/2017	<0.0002	<0.0002				
6/21/2017				<0.0002	0.00011 (J)	<0.0002
6/22/2017			<0.0002			
10/25/2017	<0.0002	<0.0002				
10/26/2017			<0.0002	<0.0002	9.4E-05 (J)	<0.0002
4/10/2018	<0.0002	7E-05 (J)		7.1E-05 (J)	9.9E-05 (J)	<0.0002
4/11/2018			<0.0002			
10/16/2018	<0.0002	<0.0002			7E-05 (J)	
10/17/2018			<0.0002	<0.0002		<0.0002
8/20/2019	<0.0002	<0.0002			<0.0002	
8/21/2019			<0.0002	<0.0002		<0.0002
4/7/2020	0.00016 (J)	<0.0002				
4/8/2020			<0.0002	<0.0002	<0.0002	<0.0002
8/18/2020	<0.0002	<0.0002				<0.0002
8/19/2020			<0.0002	<0.0002	<0.0002	

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.0002	<0.0002	<0.0002	
9/1/2016	<0.0002				
10/25/2016		<0.0002		<0.0002	
10/26/2016	<0.0002		<0.0002		
1/26/2017		<0.0002	8.1E-05 (J)	<0.0002	
1/27/2017	7.4E-05 (J)				
4/12/2017	<0.0002	<0.0002	<0.0002	<0.0002	
6/21/2017	<0.0002		<0.0002		
6/22/2017		<0.0002		<0.0002	
10/25/2017	<0.0002	<0.0002		<0.0002	
10/26/2017			<0.0002		
4/10/2018		7E-05 (J)			
4/11/2018	<0.0002		<0.0002	<0.0002	
10/17/2018	<0.0002	<0.0002	<0.0002	<0.0002	
8/21/2019	<0.0002	<0.0002	<0.0002	<0.0002	
4/8/2020		<0.0002			
4/9/2020	<0.0002		<0.0002	<0.0002	
8/18/2020		<0.0002			
8/19/2020				<0.0002	
8/20/2020	<0.0002		<0.0002		
12/1/2020					<0.0002
2/9/2021					<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				<0.015		
8/31/2016					<0.015	0.004 (J)
10/24/2016				<0.015		
10/25/2016					<0.015	<0.015
1/23/2017				<0.015		<0.015
1/24/2017					<0.015	
4/11/2017				<0.015	<0.015	<0.015
6/20/2017						<0.015
6/21/2017				<0.015	<0.015	
10/25/2017				<0.015	0.0018 (J)	<0.015
4/9/2018					<0.015	<0.015
4/10/2018				<0.015		
10/16/2018				<0.015	<0.015	<0.015
8/19/2019					<0.015	
8/20/2019				<0.015		
8/21/2019						0.002 (J)
10/7/2019						0.00067 (J)
10/8/2019				<0.015	<0.015	
1/15/2020	0.0053		0.00065 (J)			
4/6/2020						0.00084 (J)
4/7/2020				<0.015	<0.015	
6/24/2020	0.0077 (J)	0.00079 (J)	<0.015			
6/25/2020					<0.015	<0.015
6/26/2020				<0.015		
8/18/2020				<0.015	<0.015	
8/19/2020						0.00065 (J)
8/20/2020	0.0029 (J)	<0.015				
8/21/2020			<0.015			
9/29/2020				<0.015	<0.015	<0.015
9/30/2020	0.0061 (J)	0.00073 (J)				
10/1/2020			<0.015			
2/9/2021			<0.015	<0.015	<0.015	
2/10/2021	0.00065 (J)	<0.015				
2/11/2021						<0.015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.015				
8/31/2016	<0.015					
9/1/2016			<0.015		<0.015	<0.015
9/2/2016				0.0015 (J)		
10/25/2016	<0.015	<0.015	<0.015		<0.015	<0.015
10/26/2016				<0.015		
1/24/2017	<0.015	<0.015				
1/26/2017				<0.015	<0.015	<0.015
1/27/2017			<0.015			
4/11/2017	<0.015	<0.015			<0.015	<0.015
4/12/2017			<0.015	<0.015		
6/20/2017	<0.015	<0.015				
6/21/2017				<0.015	<0.015	<0.015
6/22/2017			<0.015			
10/25/2017	0.00093 (J)	<0.015				
10/26/2017			<0.015	<0.015	<0.015	<0.015
4/10/2018	<0.015	<0.015		0.00097 (J)	<0.015	<0.015
4/11/2018			<0.015			
10/16/2018	<0.015	<0.015			<0.015	
10/17/2018			<0.015	<0.015		<0.015
8/20/2019	<0.015	<0.015			<0.015	
8/21/2019			<0.015	0.0017 (J)		<0.015
10/8/2019	<0.015	<0.015		0.0011 (J)		
10/9/2019			<0.015		<0.015	<0.015
4/7/2020	<0.015	<0.015				
4/8/2020			<0.015	0.00075 (J)	<0.015	<0.015
6/23/2020			<0.015			
6/24/2020					<0.015	<0.015
6/25/2020	<0.015	<0.015		0.00086 (J)		
8/18/2020	<0.015	<0.015				<0.015
8/19/2020			<0.015	0.0016 (J)	<0.015	
9/29/2020	<0.015	<0.015		0.0019 (J)	<0.015	<0.015
10/1/2020			<0.015			
2/9/2021	<0.015	<0.015	<0.015	0.0012 (J)	<0.015	<0.015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.015	0.034	<0.015	
9/1/2016	<0.015				
10/25/2016		<0.015		<0.015	
10/26/2016	<0.015		0.0377		
1/26/2017		<0.015	0.04	<0.015	
1/27/2017	<0.015				
4/12/2017	<0.015	<0.015	0.035	<0.015	
6/21/2017	<0.015		0.038		
6/22/2017		<0.015		<0.015	
10/25/2017	<0.015	<0.015		<0.015	
10/26/2017			0.041		
4/10/2018		<0.015			
4/11/2018	<0.015		0.037	<0.015	
10/17/2018	<0.015	<0.015	0.036	<0.015	
8/21/2019	<0.015	<0.015	0.051	<0.015	
10/9/2019	<0.015	<0.015	0.049	<0.015	
4/8/2020		<0.015			
4/9/2020	<0.015		0.039	<0.015	
6/23/2020			0.043		
6/24/2020	<0.015				
6/25/2020		<0.015			
6/26/2020				<0.015	
8/18/2020		<0.015			
8/19/2020				<0.015	
8/20/2020	<0.015		0.042		
9/29/2020		<0.015			
9/30/2020	<0.015				
10/1/2020			0.043	<0.015	
12/1/2020					<0.015
2/9/2021					<0.015
2/10/2021	<0.015	<0.015	0.041	<0.015	

Time Series

Constituent: pH (SU) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				6.82 (o)		
8/31/2016					6.67 (o)	7.55 (o)
10/24/2016				5.99		
10/25/2016					5.8	6.92
1/23/2017				5.94		6.76
1/24/2017					5.82	
4/11/2017				5.88	5.78	6.72
6/20/2017						6.66
6/21/2017				5.73	5.67	
10/25/2017				6.13	5.72	6.77
4/9/2018					5.78	6.6
4/10/2018				5.95		
10/16/2018				5.94	5.74	6.63
3/26/2019					5.96	
3/27/2019				6		6.83
8/19/2019					5.59	
8/20/2019				5.89		
8/21/2019						6.94
10/7/2019						6.69
10/8/2019				5.93	5.74	
1/15/2020	6.77	6.36	6.09			
4/6/2020						6.65
4/7/2020				5.91	5.84	
6/24/2020	6.38	5.78	6.33			
6/25/2020					5.8	6.38
6/26/2020				5.94		
8/18/2020				6.48	6.15	
8/19/2020						6.62
8/20/2020	6.24	5.77				
8/21/2020			6.32			
9/29/2020				5.88	5.75	6.8
9/30/2020	6.41	5.94				
10/1/2020			6.37			
2/9/2021			6.34	5.92	5.79	
2/10/2021	6.15	5.64				
2/11/2021						7.02

Time Series

Constituent: pH (SU) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		6.07				
8/31/2016	6.09		6.16			
9/1/2016					5.49	5.52
9/2/2016				6.54		
10/25/2016	5.92	5.96	6.02	6.25	5.29	5.45
10/26/2016				6.23		
1/24/2017	5.98	5.89				
1/26/2017				6.4	5.29	5.43
1/27/2017			5.98			
4/11/2017	5.82	5.78			5.21	5.33
4/12/2017			5.87	6.1		
6/20/2017	5.8	5.69				
6/21/2017				6.11	5.21	5.3
6/22/2017			5.68			
10/25/2017	5.89	6.11				
10/26/2017			6.07	6.2	5.2	5.29
4/10/2018	5.85	5.58		6.17	5.34	5.46
4/11/2018			5.72			
10/16/2018	6.03	5.86			5.47	
10/17/2018			5.9	6.34		5.32
3/27/2019	6.1	5.97		6.6		
3/28/2019			6.05		5.31	5.36
8/20/2019	5.83	5.8			5.35	
8/21/2019			5.82	6.3		5.07
10/8/2019	5.96	5.93		6.38		
10/9/2019			5.94		5.22	5.27
4/7/2020	5.9	5.86				
4/8/2020			5.95	6.26	5.07	5.02
6/23/2020			5.95			
6/24/2020					5.2	5.11
6/25/2020	5.75	5.87		6.32		
8/18/2020	6.47	6.18				5.07
8/19/2020			7.06	6.47	5.24	
9/29/2020	6.02	6		7.11	5.5	5.75
10/1/2020			5.83			
2/9/2021	5.94	5.88	5.94	6.43	5.24	5.17
2/11/2021	5.94	5.87			5.23	

Time Series

Constituent: pH (SU) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		5.98	6.62	6.1	
9/1/2016	6.19				
10/25/2016		5.81		5.92	
10/26/2016	6.03		6.44		
1/26/2017		5.73	6.34	5.82	
1/27/2017	6.01				
4/12/2017	5.97	5.65	6.36	5.79	
6/21/2017	5.9		6.28		
6/22/2017		5.69		5.64	
10/25/2017	5.97	5.99		5.7	
10/26/2017			6.47		
4/10/2018		5.6			
4/11/2018	5.87		6.34	5.69	
10/17/2018	5.9	5.67	6.2	5.81	
3/27/2019	6.06				
3/28/2019		5.85		5.97	
3/29/2019			6.55		
8/21/2019	5.94	5.77	6.36	5.76	
10/9/2019	6.01	5.76	6.47	5.9	
4/8/2020		5.75			
4/9/2020	5.98		6.42	5.9	
6/23/2020			6.37		
6/24/2020	5.91				
6/25/2020		5.75			
6/26/2020				5.85	
8/18/2020		6.7			
8/19/2020				7.21	
8/20/2020	6.43		6.34		
9/29/2020		5.92			
9/30/2020	5.98				
10/1/2020			6.44	5.78	
12/1/2020					5.85
2/9/2021					5.69
2/10/2021	5.99	5.77	6.45	5.91	
2/11/2021	6.03			5.95	

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				0.0054		
5/7/2009					0.0059	
12/3/2009				0.006	0.0057	
5/25/2010				<0.005	<0.005	
6/2/2010						<0.005
11/9/2010				<0.005		
11/10/2010					<0.005	<0.005
5/19/2011						<0.005
5/24/2011				<0.005		
5/25/2011					<0.005	
11/9/2011						<0.005
11/10/2011				<0.005	<0.005	
5/18/2012				<0.005		
5/30/2012					<0.005	<0.005
11/9/2012				<0.005	<0.005	
11/11/2012						<0.005
5/8/2013				<0.005		
5/9/2013					<0.005	<0.005
11/6/2013				<0.005		
11/11/2013					<0.005	<0.005
5/20/2014				<0.005		
5/21/2014					<0.005	
5/29/2014						<0.005
11/18/2014				<0.005	0.0083	
11/19/2014						<0.005
4/7/2015					<0.005	
4/14/2015				<0.005		<0.005
10/28/2015					0.023	
10/29/2015				<0.005		
11/4/2015						<0.005
6/23/2016				<0.005	0.0096	<0.005
8/30/2016				<0.005		
8/31/2016					0.017	0.00077 (J)
10/24/2016				<0.005		
10/25/2016					0.0257	<0.005
1/23/2017				<0.005		0.00037 (J)
1/24/2017					0.0097	
4/11/2017				<0.005	0.0079	<0.005
6/20/2017						0.00044 (J)
6/21/2017				0.00025 (J)	0.019	
10/25/2017				0.00027 (J)	0.022	0.00038 (J)
4/9/2018					0.0063	<0.005
4/10/2018				0.00033 (J)		
10/16/2018				<0.005	0.021	<0.005
3/26/2019					0.015	
3/27/2019				<0.005		<0.005
8/19/2019					0.034	
8/20/2019				<0.005		
8/21/2019						<0.005
10/7/2019						<0.005
10/8/2019				<0.005	0.03	
4/6/2020						<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
4/7/2020				<0.005	0.0094	
8/18/2020				<0.005	0.019	
8/19/2020						<0.005
8/20/2020	<0.005	<0.005				
8/21/2020			<0.005			
9/29/2020				<0.005	0.021	<0.005
9/30/2020	<0.005	<0.005				
10/1/2020			<0.005			
2/9/2021			<0.005	<0.005	0.019	
2/10/2021	<0.005	<0.005				
2/11/2021						<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	<0.005	<0.005				
6/30/1998	<0.005	<0.005				
12/2/1998	<0.005	<0.005				
6/8/1999	<0.005	<0.005				
12/7/1999	<0.005	<0.005				
6/15/2000	<0.005	<0.005				
12/12/2000	<0.005	<0.005				
12/5/2001	<0.005	<0.005				
6/26/2002	<0.005	<0.005				
12/3/2002	<0.005	<0.005				
6/11/2003	<0.005	<0.005				
12/10/2003	<0.005	<0.005				
6/15/2004	<0.005	<0.005				
12/14/2004	<0.005	<0.005				
6/2/2005	<0.005	<0.005				
12/14/2005	<0.005	<0.005				
4/5/2006	<0.005	<0.005				
10/30/2006	<0.005	<0.005				
5/10/2007	<0.005	<0.005				
11/17/2007	<0.005	<0.005				
5/3/2008	<0.005	<0.005				
10/22/2008	<0.005	<0.005				
5/5/2009				0.0041		
5/6/2009		0.0047				
5/7/2009	0.0049					
5/12/2009					0.0062	0.0059
5/13/2009			0.005			
12/1/2009		0.0046				
12/3/2009			0.0057			
12/4/2009	<0.005			<0.005		<0.005
12/5/2009					<0.005	
5/25/2010		<0.005				<0.005
5/26/2010			<0.005		<0.005	
6/1/2010	<0.005			<0.005		
11/9/2010		<0.005	<0.005		<0.005	<0.005
11/10/2010	<0.005			<0.005		
5/19/2011			<0.005			
5/24/2011		<0.005			<0.005	<0.005
5/25/2011	<0.005			<0.005		
11/9/2011				<0.005		
11/10/2011		<0.005				
11/11/2011			<0.005			
11/12/2011	<0.005				<0.005	<0.005
5/17/2012			<0.005			
5/18/2012		<0.005				
5/30/2012					0.0016 (J)	<0.005
5/31/2012	<0.005			<0.005		
11/9/2012		<0.005	<0.005		<0.005	<0.005
11/10/2012				<0.005		
11/11/2012	<0.005					
5/7/2013			<0.005			
5/8/2013		<0.005				<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/13/2013	<0.005			<0.005	<0.005	
11/6/2013		<0.005	<0.005		<0.005	<0.005
11/12/2013	<0.005			<0.005		
5/20/2014		<0.005	<0.005			<0.005
5/21/2014					<0.005	
5/28/2014				<0.005		
5/29/2014	<0.005					
11/17/2014		<0.005			<0.005	<0.005
11/18/2014			<0.005			
11/20/2014				<0.005		
4/7/2015		<0.005	<0.005		<0.005	<0.005
4/14/2015	<0.005			<0.005		
10/28/2015		<0.005	<0.005		<0.005	<0.005
11/3/2015	<0.005			<0.005		
6/23/2016	<0.005	<0.005	<0.005	<0.005		
6/24/2016					0.0014	<0.005
8/30/2016		<0.005				
8/31/2016	<0.005					
9/1/2016			<0.005		0.0014	<0.005
9/2/2016				0.0005 (J)		
10/25/2016	<0.005	<0.005	<0.005		0.0015 (J)	<0.005
10/26/2016				<0.005		
1/24/2017	<0.005	<0.005				
1/26/2017				<0.005	0.00071 (J)	<0.005
1/27/2017			<0.005			
4/11/2017	<0.005	<0.005			0.0011 (J)	<0.005
4/12/2017			<0.005	<0.005		
6/20/2017	<0.005	<0.005				
6/21/2017				<0.005	0.00075 (J)	<0.005
6/22/2017			<0.005			
10/25/2017	0.00032 (J)	0.00027 (J)				
10/26/2017			<0.005	0.0004 (J)	0.0012 (J)	<0.005
4/10/2018	<0.005	<0.005		0.00044 (J)	0.0013	<0.005
4/11/2018			<0.005			
10/16/2018	<0.005	<0.005			0.00072 (J)	
10/17/2018			<0.005	<0.005		<0.005
3/27/2019	<0.005	<0.005		<0.005		
3/28/2019			<0.005		0.0017	<0.005
8/20/2019	<0.005	<0.005			<0.005	
8/21/2019			<0.005	<0.005		<0.005
10/8/2019	<0.005	<0.005		<0.005		
10/9/2019			<0.005		0.0018 (J)	<0.005
4/7/2020	<0.005	<0.005				
4/8/2020			<0.005	<0.005	0.0022 (J)	<0.005
8/18/2020	<0.005	<0.005				<0.005
8/19/2020			<0.005	<0.005	0.0029 (J)	
9/29/2020	<0.005	<0.005		<0.005	0.0025 (J)	<0.005
10/1/2020			<0.005			
2/9/2021	<0.005	<0.005	<0.005	<0.005	0.0019 (J)	<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		<0.005			
4/5/2006		<0.005			
10/30/2006		<0.005			
5/10/2007		<0.005			
11/17/2007		<0.005			
5/2/2008		<0.005			
10/22/2008		<0.005			
5/12/2009	0.0039				
5/13/2009				0.0049	
5/14/2009		0.0046	0.0035		
12/1/2009		0.0019			
12/3/2009			<0.005	0.0045	
12/4/2009	<0.005				
5/25/2010	<0.005				
5/26/2010		<0.005	<0.005	<0.005	
11/9/2010			<0.005	<0.005	
11/10/2010	<0.005	<0.005			
5/18/2011			<0.005		
5/19/2011	<0.005			<0.005	
5/25/2011		<0.005			
11/11/2011		<0.005	<0.005	<0.005	
11/12/2011	<0.005				
5/17/2012	0.0006 (J)	<0.005	<0.005	<0.005	
11/9/2012		<0.005	<0.005	<0.005	
11/10/2012	<0.005				
5/7/2013	<0.005		<0.005	<0.005	
5/8/2013		<0.005			
11/5/2013	<0.005	<0.005	<0.005		
11/6/2013				<0.005	
5/21/2014		<0.005	<0.005	<0.005	
5/28/2014	<0.005				
11/17/2014		<0.005			
11/18/2014			<0.005	<0.005	
11/19/2014	<0.005				
4/7/2015		<0.005	<0.005	<0.005	
4/15/2015	<0.005				
10/28/2015		<0.005	<0.005	<0.005	
10/29/2015	<0.005				
6/23/2016		0.00029 (J)	<0.005	<0.005	
6/24/2016	<0.005				
8/31/2016		<0.005	<0.005	0.00024 (J)	
9/1/2016	<0.005				
10/25/2016		<0.005		<0.005	
10/26/2016	<0.005		<0.005		
1/26/2017		<0.005	<0.005	<0.005	
1/27/2017	<0.005				
4/12/2017	<0.005	<0.005	<0.005	<0.005	
6/21/2017	<0.005		<0.005		
6/22/2017		<0.005		<0.005	
10/25/2017	<0.005	<0.005		0.00029 (J)	
10/26/2017			<0.005		
4/10/2018		<0.005			

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
4/11/2018	<0.005		<0.005	<0.005	
10/17/2018	<0.005	<0.005	<0.005	<0.005	
3/27/2019	<0.005				
3/28/2019		<0.005	<0.005	<0.005	
8/21/2019	<0.005	<0.005	<0.005	<0.005	
10/9/2019	<0.005	<0.005	<0.005	<0.005	
4/8/2020		<0.005			
4/9/2020	<0.005		<0.005	<0.005	
8/18/2020		<0.005			
8/19/2020				<0.005	
8/20/2020	<0.005		<0.005		
9/29/2020		<0.005			
9/30/2020	<0.005				
10/1/2020			<0.005	<0.005	
12/1/2020					<0.005
2/9/2021					<0.005
2/10/2021	<0.005	<0.005	<0.005	<0.005	

Time Series

Constituent: Silver (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				<0.001		
5/7/2009					<0.001	
12/3/2009				<0.001	<0.001	
5/25/2010				<0.001	<0.001	
6/2/2010						<0.001
11/9/2010				<0.001		
11/10/2010					<0.001	<0.001
5/19/2011						<0.001
5/24/2011				<0.001		
5/25/2011					<0.001	
5/18/2012				0.0001 (J)		
5/30/2012					<0.001	<0.001
11/9/2012				<0.001	<0.001	
11/11/2012						<0.001
5/8/2013				<0.001		
5/9/2013					<0.001	<0.001
11/6/2013				<0.001		
11/11/2013					<0.001	<0.001
5/20/2014				<0.001		
5/21/2014					<0.001	
5/29/2014						<0.001
11/18/2014				<0.001	<0.001	
11/19/2014						<0.001
4/7/2015					<0.001	
4/14/2015				<0.001		<0.001
10/28/2015					<0.001	
10/29/2015				<0.001		
11/4/2015						<0.001
6/23/2016				<0.001	<0.001	<0.001
10/24/2016				<0.001		
10/25/2016					<0.001	<0.001
4/11/2017				<0.001	<0.001	<0.001
10/25/2017				<0.001	0.00013 (J)	<0.001
4/9/2018					<0.001	<0.001
4/10/2018				<0.001		
10/16/2018				<0.001	<0.001	<0.001
3/26/2019					<0.001	
3/27/2019				<0.001		<0.001
10/7/2019						0.00022 (J)
10/8/2019				<0.001	0.00047 (J)	
4/6/2020						<0.001
4/7/2020				<0.001	<0.001	
9/29/2020				<0.001	<0.001	<0.001
9/30/2020	<0.001	<0.001				
10/1/2020			<0.001			
2/9/2021			<0.001	<0.001	<0.001	
2/10/2021	<0.001	<0.001				
2/11/2021						<0.001

Time Series

Constituent: Silver (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	0.035 (o)	<0.001				
6/30/1998	<0.001	<0.001				
12/2/1998	<0.001	<0.001				
6/8/1999	<0.001	<0.001				
12/7/1999	<0.001	<0.001				
6/15/2000	<0.001	<0.001				
12/12/2000	0.0051	<0.001				
12/5/2001	<0.001	<0.001				
6/26/2002	<0.001	<0.001				
12/3/2002	<0.001	<0.001				
6/11/2003	<0.001	<0.001				
12/10/2003	0.003	0.002 (o)				
6/15/2004	<0.001	<0.001				
12/14/2004	<0.001	<0.001				
6/2/2005	<0.001	<0.001				
12/14/2005	<0.001	<0.001				
4/5/2006	<0.001	<0.001				
10/30/2006	0.002	<0.001				
5/10/2007	0.0017	<0.001				
11/17/2007	<0.001	<0.001				
5/3/2008	<0.001	<0.001				
10/22/2008	<0.001	<0.001				
5/5/2009				<0.001		
5/6/2009		<0.001				
5/7/2009	<0.001					
5/12/2009					0.0011	0.0011
5/13/2009			0.0009			
12/1/2009		<0.001				
12/3/2009			0.00083			
12/4/2009	<0.001			0.00098		0.0014
12/5/2009					0.0004	
5/25/2010		<0.001				<0.001
5/26/2010			<0.001		<0.001	
6/1/2010	<0.001			<0.001		
11/9/2010		<0.001	<0.001		<0.001	<0.001
11/10/2010	<0.001			<0.001		
5/19/2011			<0.001			
5/24/2011		<0.001			<0.001	<0.001
5/25/2011	<0.001			<0.001		
5/17/2012			<0.001			
5/18/2012		<0.001				
5/30/2012					<0.001	<0.001
5/31/2012	<0.001			<0.001		
11/9/2012		<0.001	<0.001		<0.001	<0.001
11/10/2012				<0.001		
11/11/2012	<0.001					
5/7/2013			<0.001			
5/8/2013		<0.001				<0.001
5/13/2013	<0.001			<0.001	<0.001	
11/6/2013		<0.001	<0.001		<0.001	<0.001
11/12/2013	<0.001			<0.001		
5/20/2014		<0.001	<0.001			<0.001

Time Series

Constituent: Silver (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/21/2014					<0.001	
5/28/2014				<0.001		
5/29/2014	<0.001					
11/17/2014		<0.001			<0.001	<0.001
11/18/2014			<0.001			
11/20/2014				<0.001		
4/7/2015		<0.001	<0.001		<0.001	<0.001
4/14/2015	<0.001			<0.001		
10/28/2015		<0.001	<0.001		<0.001	<0.001
11/3/2015	<0.001			<0.001		
6/23/2016	<0.001	<0.001	<0.001	<0.001		
6/24/2016					<0.001	<0.001
10/25/2016	<0.001	<0.001	<0.001		<0.001	<0.001
10/26/2016				<0.001		
4/11/2017	<0.001	<0.001			<0.001	<0.001
4/12/2017			<0.001	<0.001		
10/25/2017	<0.001	<0.001				
10/26/2017			<0.001	0.00037 (J)	0.00026 (J)	<0.001
4/10/2018	<0.001	<0.001		<0.001	<0.001	<0.001
4/11/2018			<0.001			
10/16/2018	<0.001	<0.001			<0.001	
10/17/2018			<0.001	<0.001		<0.001
3/27/2019	<0.001	<0.001		<0.001		
3/28/2019			<0.001		<0.001	<0.001
10/8/2019	0.00019 (J)	0.0003 (J)		0.00018 (J)		
10/9/2019			<0.001		<0.001	<0.001
4/7/2020	<0.001	<0.001				
4/8/2020			<0.001	<0.001	<0.001	<0.001
9/29/2020	<0.001	<0.001		<0.001	<0.001	<0.001
10/1/2020			<0.001			
2/9/2021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Silver (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		<0.001			
4/5/2006		<0.001			
10/30/2006		<0.001			
5/10/2007		0.0011			
11/17/2007		<0.001			
5/2/2008		<0.001			
10/22/2008		<0.001			
5/12/2009	<0.001				
5/13/2009				0.0024 (o)	
5/14/2009		<0.001	<0.001		
12/1/2009		<0.001			
12/3/2009			<0.001	0.0007	
12/4/2009	0.0008				
5/25/2010	<0.001				
5/26/2010		<0.001	<0.001	<0.001	
11/9/2010			<0.001	<0.001	
11/10/2010	<0.001	<0.001			
5/18/2011			<0.001		
5/19/2011	<0.001			<0.001	
5/25/2011		<0.001			
5/17/2012	<0.001	<0.001	<0.001	<0.001	
11/9/2012		<0.001	<0.001	<0.001	
11/10/2012	<0.001				
5/7/2013	<0.001		<0.001	<0.001	
5/8/2013		<0.001			
11/5/2013	<0.001	<0.001	<0.001		
11/6/2013				<0.001	
5/21/2014		<0.001	<0.001	<0.001	
5/28/2014	<0.001				
11/17/2014		<0.001			
11/18/2014			<0.001	<0.001	
11/19/2014	<0.001				
4/7/2015		<0.001	<0.001	<0.001	
4/15/2015	<0.001				
10/28/2015		<0.001	<0.001	<0.001	
10/29/2015	<0.001				
6/23/2016		<0.001	<0.001	<0.001	
6/24/2016	<0.001				
10/25/2016		<0.001		<0.001	
10/26/2016	<0.001		<0.001		
4/12/2017	<0.001	<0.001	<0.001	<0.001	
10/25/2017	<0.001	<0.001		<0.001	
10/26/2017			<0.001		
4/10/2018		<0.001			
4/11/2018	<0.001		<0.001	<0.001	
10/17/2018	<0.001	<0.001	<0.001	<0.001	
3/27/2019	<0.001				
3/28/2019		<0.001	<0.001	<0.001	
10/9/2019	<0.001	<0.001	<0.001	<0.001	
4/8/2020		<0.001			
4/9/2020	<0.001		<0.001	<0.001	
9/29/2020		<0.001			

Time Series

Constituent: Silver (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
9/30/2020	<0.001				
10/1/2020			<0.001	<0.001	
12/1/2020					<0.001 (D)
2/9/2021					<0.001
2/10/2021	<0.001	<0.001	<0.001	<0.001	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
5/6/2009				16.6		
5/7/2009					21.4	
12/3/2009				12.3	11.6	
5/25/2010				6.44	12.3	
6/2/2010						129
11/9/2010				6.83		
11/10/2010					10.6	140
5/19/2011						269
5/24/2011				8.55		
5/25/2011					11.9	
11/9/2011						308
11/10/2011				9.74	100	
5/18/2012				8.72		
5/30/2012					61.3	296
11/9/2012				5.9	202	
11/11/2012						225
5/8/2013				5.66		
5/9/2013					33.4	268
11/6/2013				9.04		
11/11/2013					316	132
5/20/2014				7.25		
5/21/2014					162	
5/29/2014						216
11/18/2014				10	370	
11/19/2014						160
4/7/2015					235	
4/14/2015				9.61		105
10/28/2015					737	
10/29/2015				10.2		
11/4/2015						74.4
6/23/2016				9.8	380	18
8/30/2016				9.5		
8/31/2016					600	19
10/24/2016				11		
10/25/2016					820	42
1/23/2017				11		12
1/24/2017					370	
4/11/2017				9.1	340	7.1
6/20/2017						8.5
6/21/2017				10	540	
10/25/2017				11	580	9.1
4/9/2018					230	11
4/10/2018				9.5		
10/16/2018				10	520	14
3/26/2019					430	
3/27/2019				9.1		15
10/7/2019						12
10/8/2019				55	950	
4/6/2020						10
4/7/2020				8	270	
6/24/2020	45	860	58			
6/25/2020					410	3.3

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
6/26/2020				9		
9/29/2020				8.3	540	4.1
9/30/2020	49	790				
10/1/2020			58			
2/9/2021			59	11	520	
2/10/2021	60	1000				
2/11/2021						10

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
12/16/1997	<1	2				
6/30/1998	<1	<1				
12/2/1998	0.654	0.709				
6/8/1999	1.46	<1				
12/7/1999	0.399	0.531				
6/15/2000	0.601	0.733				
12/12/2000	0.45	0.621				
12/5/2001	0.094	0.274				
6/26/2002	4.95	0.505				
12/3/2002	0.911	0.515				
6/11/2003	1.85	0.508				
12/10/2003	0.77	0.578				
6/15/2004	1.3	1.23				
12/14/2004	1.02	1.22				
6/2/2005	0.834	0.908				
12/14/2005	<1	0.825				
4/5/2006	<1	1.06				
10/30/2006	0.865	0.996				
5/10/2007	1.03	1.01				
11/17/2007	0.818	1.72				
5/3/2008	0.941	1.2				
10/22/2008	<1	<1				
5/5/2009				2.89		
5/6/2009		0.807				
5/7/2009	0.46					
5/12/2009					57.9	42.6
5/13/2009			0.984			
12/1/2009		0.644				
12/3/2009			0.544			
12/4/2009	1.06			3.13		58.4
12/5/2009					72.1	
5/25/2010		0.509				79.4
5/26/2010			0.37		70.3	
6/1/2010	5.56			14.5		
11/9/2010		0.348	0.299		74.8	111
11/10/2010	0.241			5.04		
5/19/2011			0.502			
5/24/2011		0.532			87.2	171
5/25/2011	0.383			4.57		
11/9/2011				4.15		
11/10/2011		0.209				
11/11/2011			0.172			
11/12/2011	<1				97.9	182
5/17/2012			0.438			
5/18/2012		0.471				
5/30/2012					103	194
5/31/2012	0.426			4.05		
11/9/2012		0.589	0.537		140	842 (o)
11/10/2012				5.68		
11/11/2012	0.455 (J)					
5/7/2013			0.437			
5/8/2013		0.504				173

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
5/13/2013	2.61			2.45	160	
11/6/2013		<1	<1		146	471 (o)
11/12/2013	<1			11.8		
5/20/2014		0.5 (J)	0			145
5/21/2014					217	
5/28/2014				14.6		
5/29/2014	1.41					
11/17/2014		<1			97	110
11/18/2014			<1			
11/20/2014				12		
4/7/2015		0.469	0.464		125	145
4/14/2015	0.377			8.71		
10/28/2015		0.28	0.293		106	82.7
11/3/2015	0.215			5.14		
6/23/2016	<1	<1	<1	6.9		
6/24/2016					170	79
8/30/2016		<1				
8/31/2016	<1					
9/1/2016			<1		130	94
9/2/2016				6.1		
10/25/2016	0.3 (J)	0.4 (J)	0.38 (J)		200	73
10/26/2016				22		
1/24/2017	<1	<1				
1/26/2017				5.1	130	110
1/27/2017			<1			
4/11/2017	<1	<1			150	77
4/12/2017			<1	4		
6/20/2017	<1	<1				
6/21/2017				4.6	130	75
6/22/2017			<1			
10/25/2017	<1	<1				
10/26/2017			<1	5.4	110	61
4/10/2018	<1	<1		6.7	130	58
4/11/2018			<1			
10/16/2018	<1	<1			84	
10/17/2018			<1	6.8		47
3/27/2019	0.38 (J)	0.55 (J)		7.2		
3/28/2019			0.38 (J)		220	59
10/8/2019	0.7 (J)	0.7 (J)		31		
10/9/2019			0.59 (J)		210	57
4/7/2020	0.67 (J)	<1				
4/8/2020			<1	5.9	200	47
6/23/2020			<1			
6/24/2020					310	67
6/25/2020	1.6	<1		5.6		
9/29/2020	<1	<1		7.7	200	66
10/1/2020			<1			
2/9/2021	<1	<1	1.3	7.1	190	73

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
12/14/2005		133			
4/5/2006		140			
10/30/2006		157			
5/10/2007		111			
11/17/2007		114			
5/2/2008		104			
10/22/2008		129			
5/12/2009	173				
5/13/2009				0.938	
5/14/2009		157	109		
12/1/2009		142			
12/3/2009			107	0.422	
12/4/2009	195				
5/25/2010	199				
5/26/2010		120	109	0.262	
11/9/2010			100	<1	
11/10/2010	189	100			
5/18/2011			110		
5/19/2011	186			0.359	
5/25/2011		88.8			
11/11/2011		96.6	107	<1	
11/12/2011	49.9				
5/17/2012	177	88.9	98	0.398	
11/9/2012		70.1	90.4	0.545	
11/10/2012	184				
5/7/2013	195		96.2	0.797	
5/8/2013		80.5			
11/5/2013	178	71.6	86.9		
11/6/2013				0.86	
5/21/2014		80.4	106	1.02	
5/28/2014	201				
11/17/2014		71			
11/18/2014			99	1.2	
11/19/2014	150				
4/7/2015		70.6	82.3	1.14	
4/15/2015	195				
10/28/2015		12.2	78	1.02	
10/29/2015	147				
6/23/2016		61	78	1	
6/24/2016	200				
8/31/2016		57	72	1.1	
9/1/2016	200				
10/25/2016		56		4.7 (o)	
10/26/2016	200		77		
1/26/2017		57	75	1.1	
1/27/2017	200				
4/12/2017	190	47	69	0.9 (J)	
6/21/2017	200		73		
6/22/2017		49		0.99 (J)	
10/25/2017	190	49		0.95 (J)	
10/26/2017			72		
4/10/2018		46			

Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
4/11/2018	200		69	0.9 (J)	
10/17/2018	190	42	67	0.95 (J)	
3/27/2019	190				
3/28/2019		45	66	1	
10/9/2019	180	42	63	1.5	
4/8/2020		39			
4/9/2020	190		59	1.1	
6/23/2020			62		
6/24/2020	190				
6/25/2020		42			
6/26/2020				0.94 (J)	
9/29/2020		38			
9/30/2020	170				
10/1/2020			57	0.82 (J)	
12/1/2020					7.5
2/9/2021					8.5
2/10/2021	220	43	60	1.7	

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				<0.001		
8/31/2016					<0.001	<0.001
10/24/2016				<0.001		
10/25/2016					<0.001	<0.001
1/23/2017				<0.001		<0.001
1/24/2017					<0.001	
4/11/2017				<0.001	<0.001	<0.001
6/20/2017						<0.001
6/21/2017				<0.001	<0.001	
10/25/2017				<0.001	<0.001	<0.001
4/9/2018					<0.001	<0.001
4/10/2018				<0.001		
10/16/2018				<0.001	<0.001	<0.001
8/19/2019					<0.001	
8/20/2019				<0.001		
8/21/2019						<0.001
10/7/2019						<0.001
10/8/2019				<0.001	<0.001	
4/6/2020						<0.001
4/7/2020				<0.001	<0.001	
8/18/2020				<0.001	<0.001	
8/19/2020						<0.001
8/20/2020	<0.001	0.00022 (J)				
8/21/2020			0.00018 (J)			
9/29/2020				<0.001	<0.001	0.00019 (J)
9/30/2020	<0.001	<0.001				
10/1/2020			<0.001			
2/9/2021			<0.001	<0.001	<0.001	
2/10/2021	<0.001	<0.001				
2/11/2021						<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		<0.001				
8/31/2016	<0.001					
9/1/2016			<0.001		<0.001	<0.001
9/2/2016				9.5E-05 (J)		
10/25/2016	<0.001	<0.001	<0.001		<0.001	<0.001
10/26/2016				<0.001		
1/24/2017	<0.001	<0.001				
1/26/2017				<0.001	<0.001	<0.001
1/27/2017			<0.001			
4/11/2017	<0.001	<0.001			<0.001	<0.001
4/12/2017			<0.001	<0.001		
6/20/2017	<0.001	<0.001				
6/21/2017				<0.001	<0.001	<0.001
6/22/2017			<0.001			
10/25/2017	<0.001	<0.001				
10/26/2017			<0.001	<0.001	<0.001	<0.001
4/10/2018	<0.001	<0.001		<0.001	<0.001	<0.001
4/11/2018			<0.001			
10/16/2018	<0.001	<0.001			<0.001	
10/17/2018			<0.001	<0.001		<0.001
8/20/2019	0.0002 (J)	0.00023 (J)			<0.001	
8/21/2019			<0.001	<0.001		<0.001
10/8/2019	<0.001	<0.001		<0.001		
10/9/2019			<0.001		<0.001	<0.001
4/7/2020	<0.001	0.00015 (J)				
4/8/2020			<0.001	<0.001	<0.001	<0.001
8/18/2020	0.00036 (J)	0.00021 (J)				<0.001
8/19/2020			<0.001	<0.001	0.00027 (J)	
9/29/2020	<0.001	0.00019 (J)		<0.001	0.00025 (J)	<0.001
10/1/2020			<0.001			
2/9/2021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		<0.001	<0.001	<0.001	
9/1/2016	<0.001				
10/25/2016		<0.001		<0.001	
10/26/2016	<0.001		<0.001		
1/26/2017		<0.001	<0.001	<0.001	
1/27/2017	<0.001				
4/12/2017	<0.001	<0.001	<0.001	<0.001	
6/21/2017	<0.001		<0.001		
6/22/2017		<0.001		<0.001	
10/25/2017	<0.001	<0.001		<0.001	
10/26/2017			<0.001		
4/10/2018		<0.001			
4/11/2018	<0.001		<0.001	<0.001	
10/17/2018	<0.001	<0.001	<0.001	<0.001	
8/21/2019	<0.001	<0.001	<0.001	<0.001	
10/9/2019	<0.001	<0.001	<0.001	<0.001	
4/8/2020		<0.001			
4/9/2020	<0.001		<0.001	<0.001	
8/18/2020		<0.001			
8/19/2020				<0.001	
8/20/2020	<0.001		<0.001		
9/29/2020		<0.001			
9/30/2020	<0.001				
10/1/2020			<0.001	<0.001	
12/1/2020					<0.001
2/9/2021					<0.001
2/10/2021	<0.001	<0.001	<0.001	<0.001	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARAMW-3	ARAMW-4	ARAMW-6	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWA-14 (bg)
8/30/2016				100		
8/31/2016					1000	330
10/24/2016				136		
10/25/2016					1280	459
1/23/2017				16		340
1/24/2017					590	
4/11/2017				120	610	300
6/20/2017						210
6/21/2017				140	880	
10/25/2017				120	900	280
4/9/2018					440	280
4/10/2018				130		
10/16/2018				150	910	48
3/26/2019					750	
3/27/2019				110		330
10/7/2019						230
10/8/2019				130	1500	
4/6/2020						280
4/7/2020				120	480	
9/29/2020				130	880	210
9/30/2020	240	1300				
10/1/2020			220			
2/9/2021			220	140	890	
2/10/2021	230	1500				
2/11/2021						290

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/6/2021 3:49 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-10	ARGWC-15	ARGWC-16	ARGWC-17
8/30/2016		58				
8/31/2016	80					
9/1/2016			100		240	220
9/2/2016				150		
10/25/2016	65	34	65		304	114
10/26/2016				125		
1/24/2017	70	120				
1/26/2017				86	170	170
1/27/2017			86			
4/11/2017	64	76			260	160
4/12/2017			110	140		
6/20/2017	52	36				
6/21/2017				120	230	140
6/22/2017			82			
10/25/2017	72	64				
10/26/2017			38	96	170	120
4/10/2018	86	60		130	260	110
4/11/2018			50			
10/16/2018	74	54			140	
10/17/2018			120	160		140
3/27/2019	69	61		150		
3/28/2019			82		370	120
10/8/2019	66	68		130		
10/9/2019			92		350	120
4/7/2020	64	65				
4/8/2020			82	130	350	91
9/29/2020	62	61		130	340	140
10/1/2020			93			
2/9/2021	62	73	81	140	310	160 (D)

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/6/2021 3:49 PM

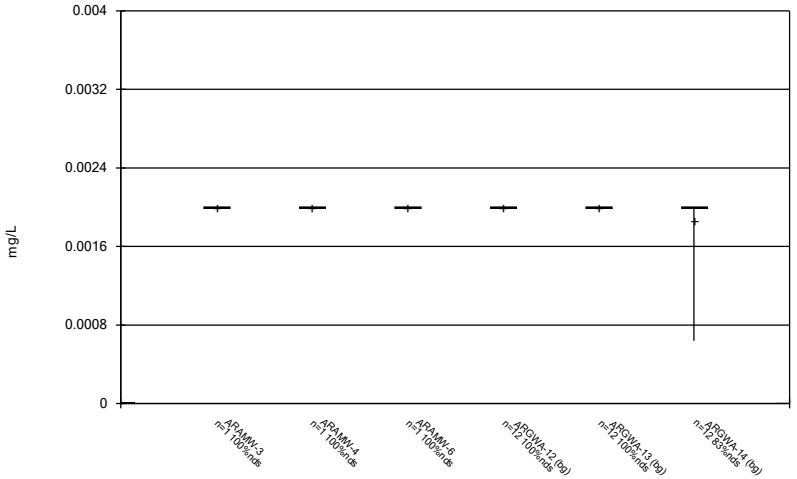
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-7	ARGWC-8	ARGWC-9	ARGWA-24 (bg)
8/31/2016		150	310	74	
9/1/2016	450				
10/25/2016		171		67	
10/26/2016	404		283		
1/26/2017		120	300	84	
1/27/2017	460				
4/12/2017	430	150	310	88	
6/21/2017	430		300		
6/22/2017		130		76	
10/25/2017	380	130		60	
10/26/2017			270		
4/10/2018		140			
4/11/2018	430		240	24	
10/17/2018	470	180	120	96	
3/27/2019	430				
3/28/2019		130	290	77	
10/9/2019	420	130	290	75	
4/8/2020		130			
4/9/2020	440		270	70	
9/29/2020		140			
9/30/2020	390				
10/1/2020			270	55	
12/1/2020					120
2/9/2021					110
2/10/2021	460	110	270	71	

FIGURE B.

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

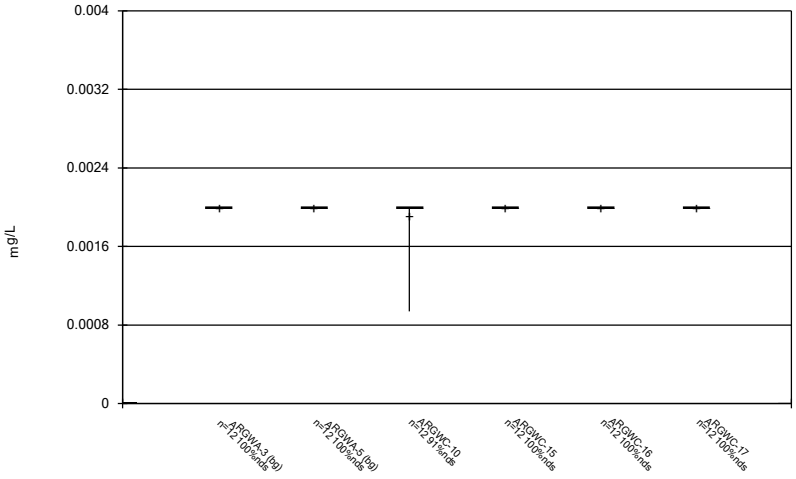


Constituent: Antimony Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

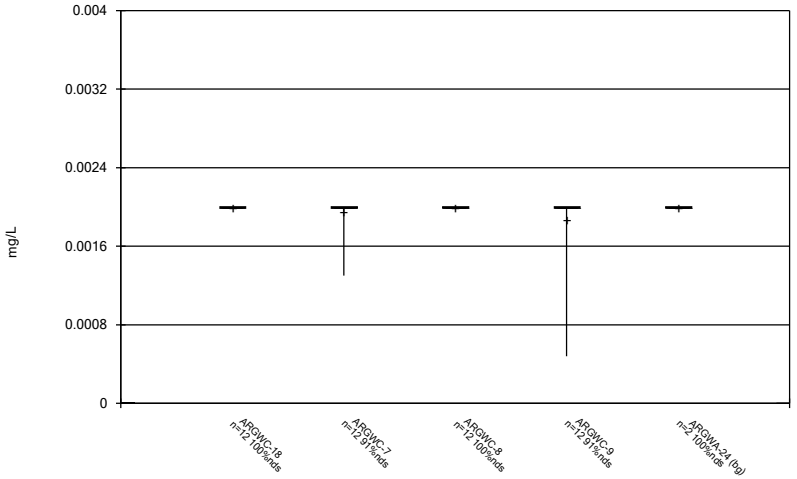


Constituent: Antimony Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

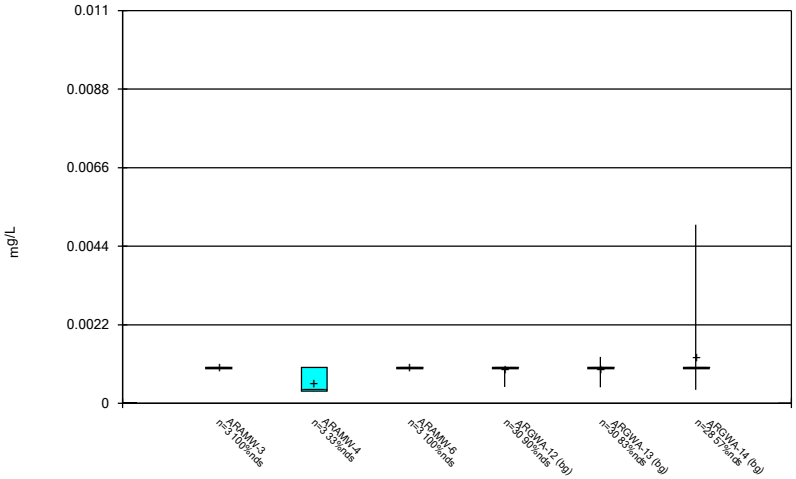


Constituent: Antimony Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

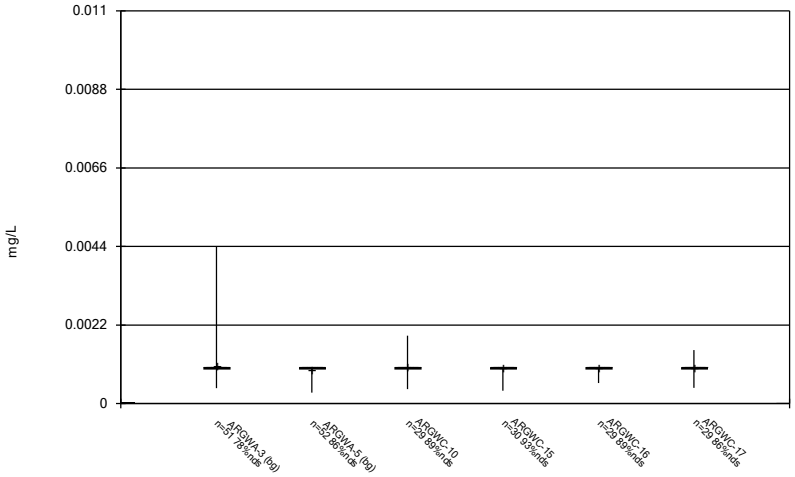


Constituent: Arsenic Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

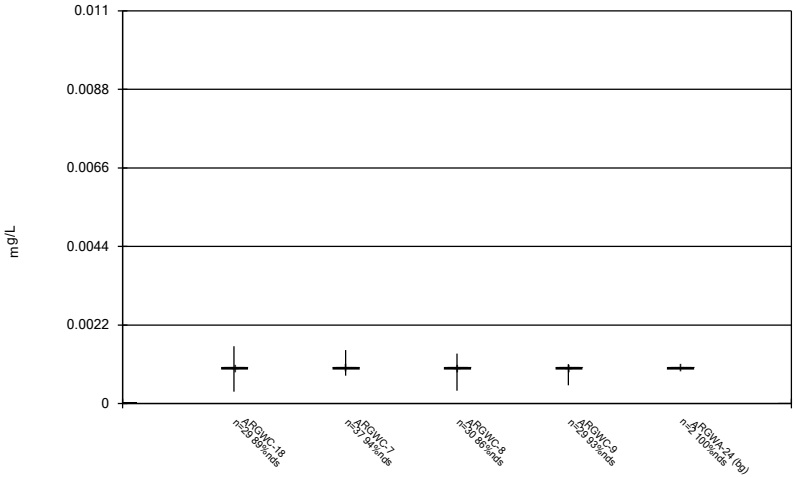


Constituent: Arsenic Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

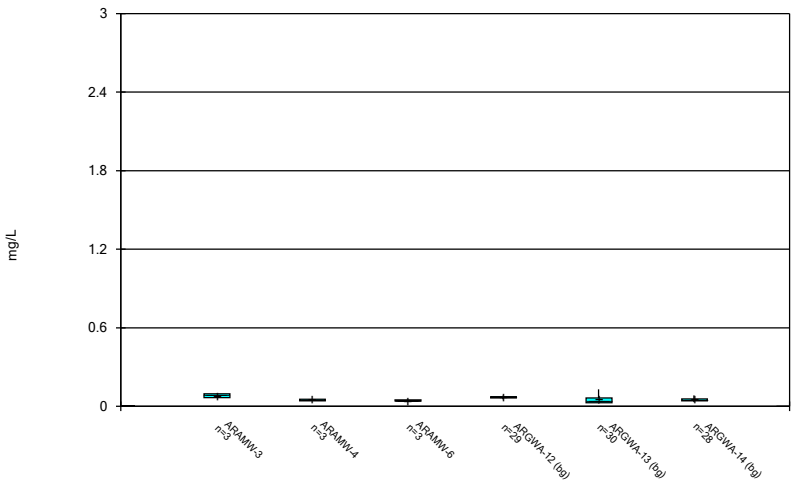


Constituent: Arsenic Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

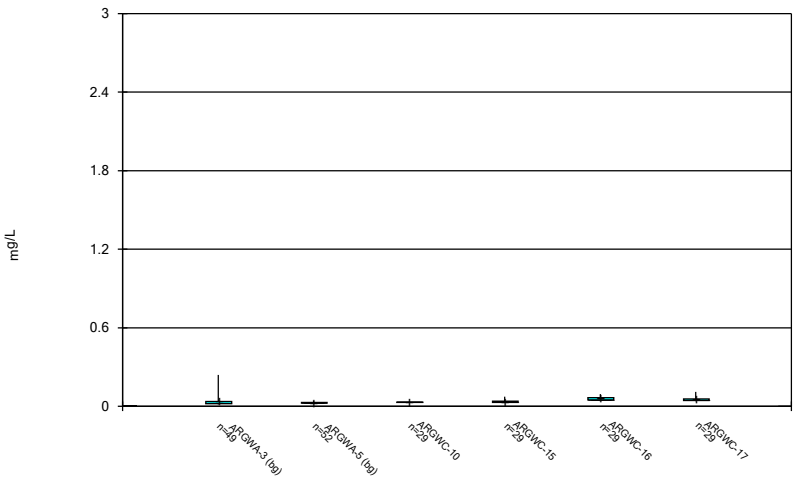


Constituent: Barium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

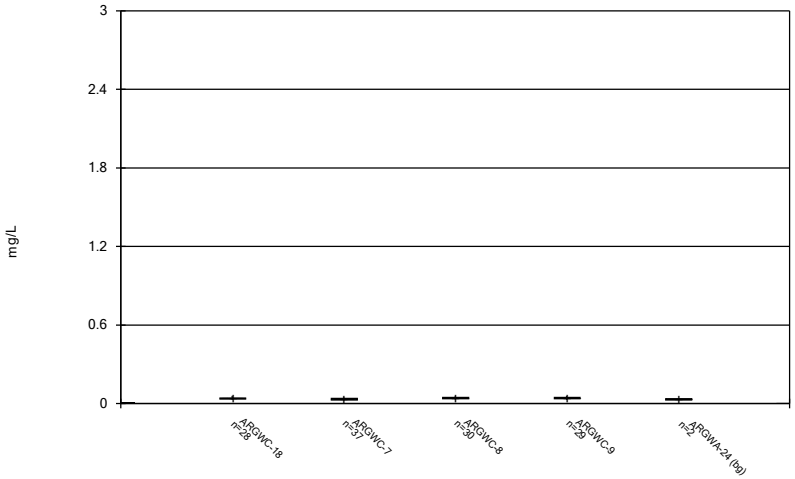


Constituent: Barium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

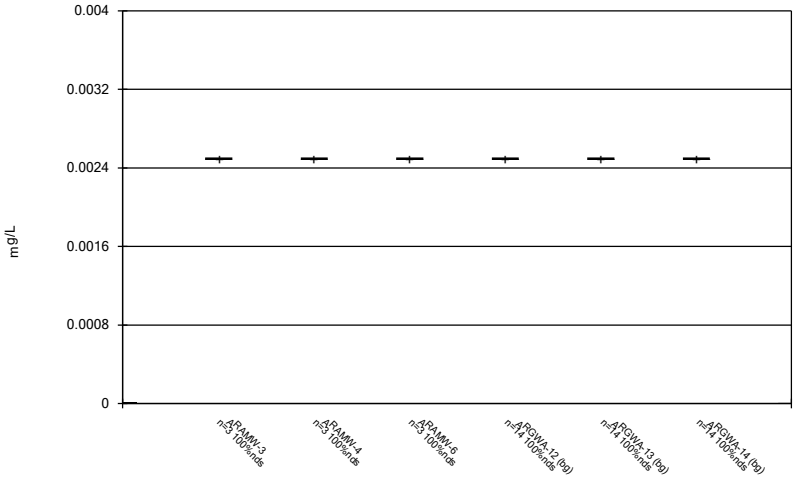


Constituent: Barium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

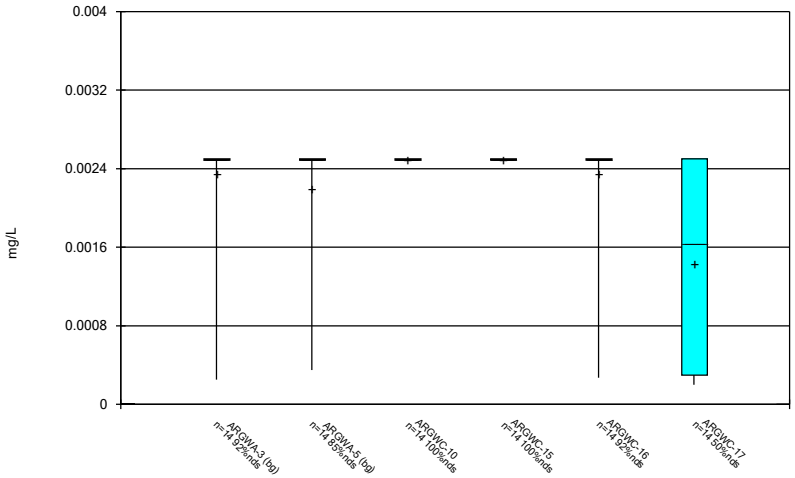


Constituent: Beryllium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

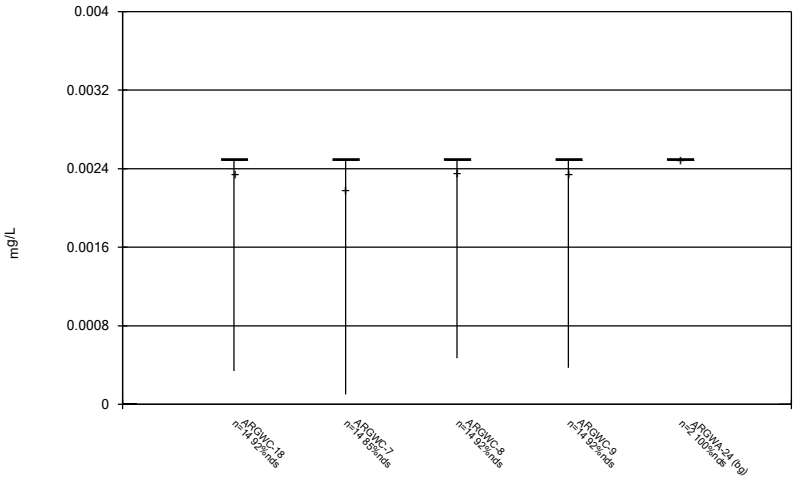


Constituent: Beryllium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

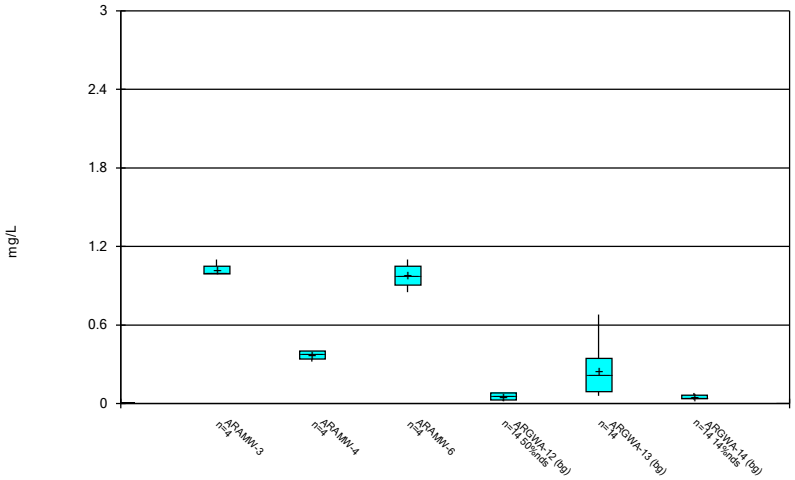


Constituent: Beryllium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

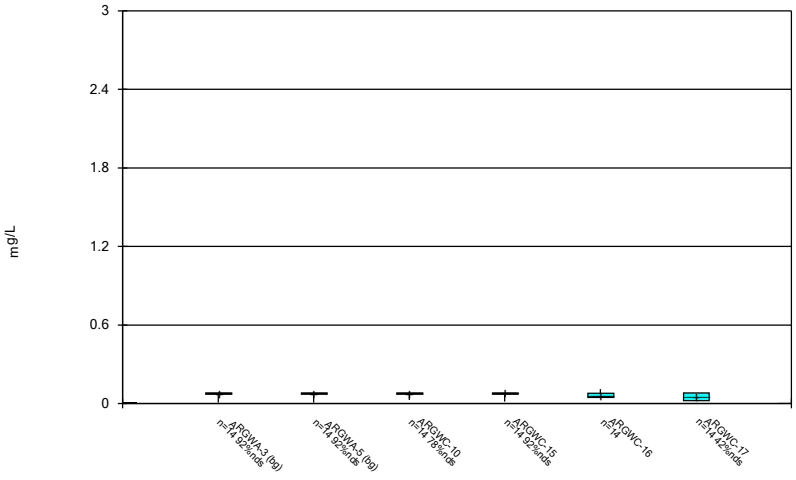


Constituent: Boron Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

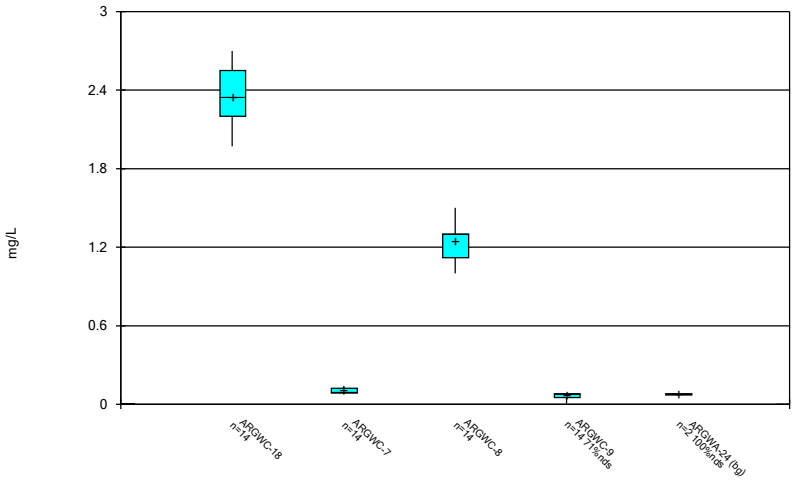


Constituent: Boron Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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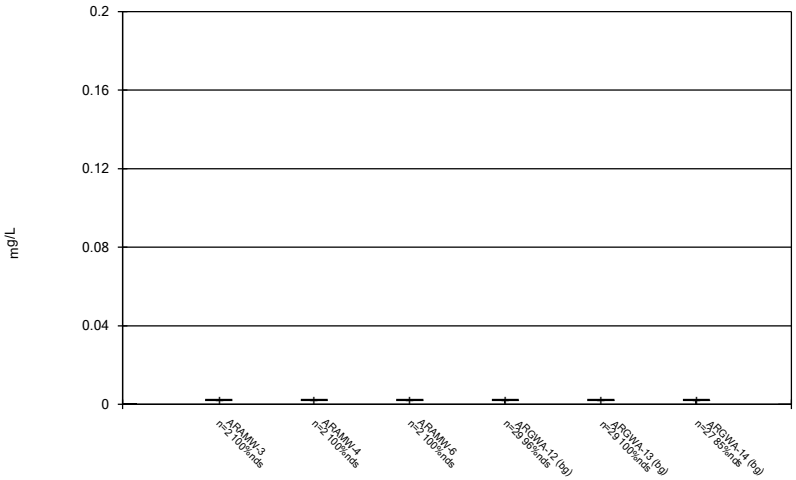
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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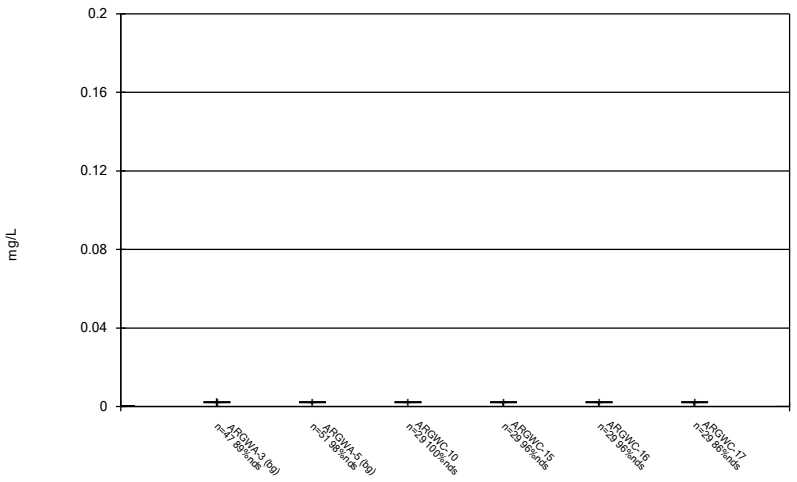
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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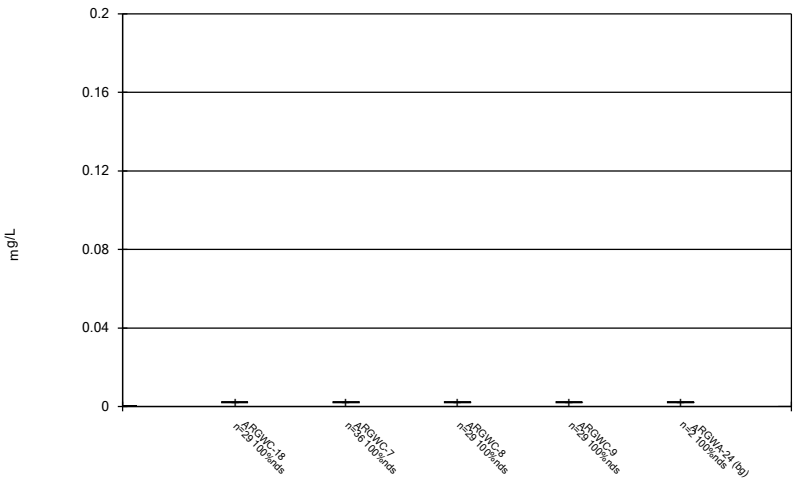
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

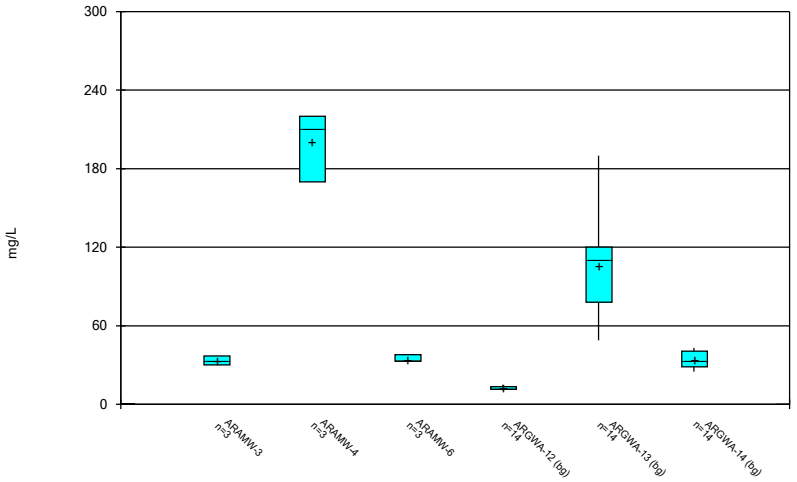


Constituent: Cadmium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

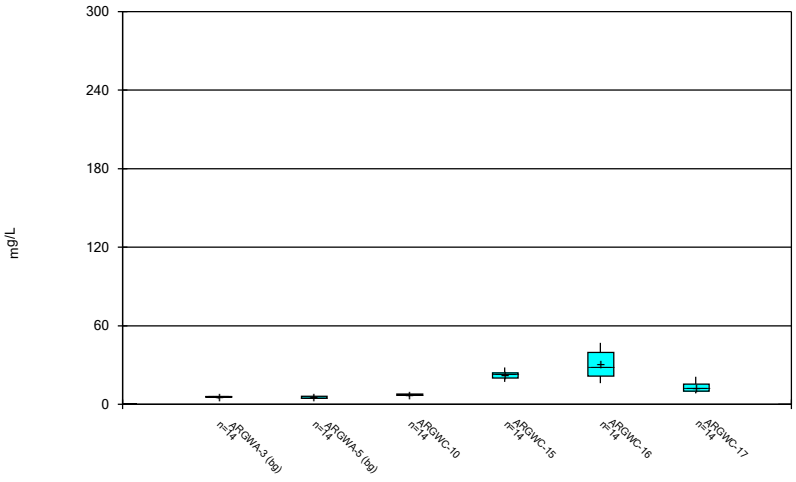


Constituent: Calcium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

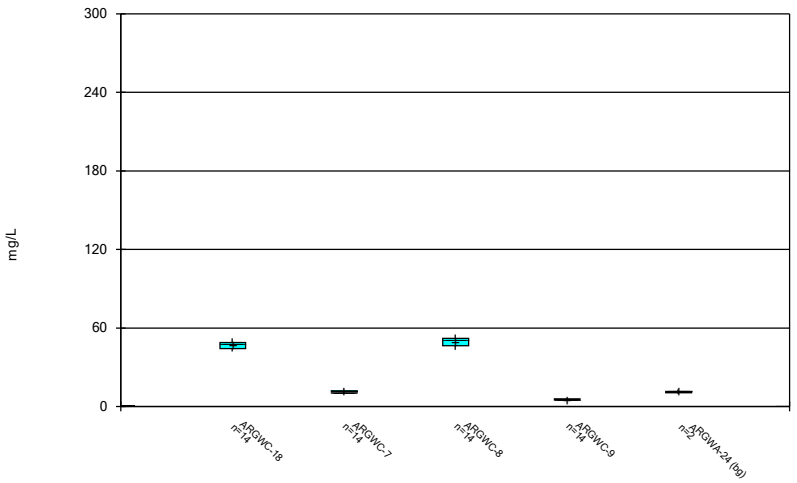


Constituent: Calcium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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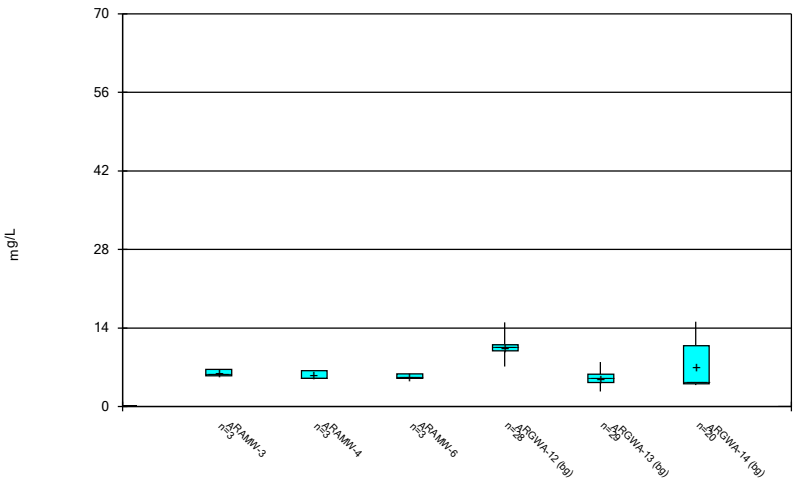
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

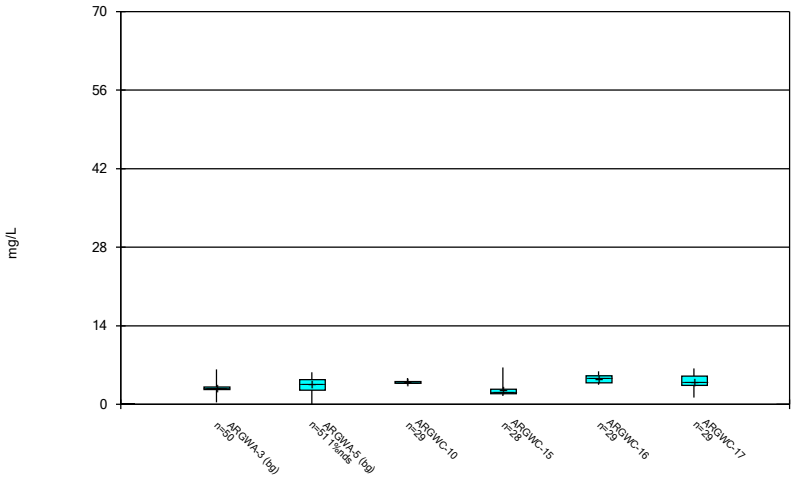
Box & Whiskers Plot



Constituent: Chloride Analysis Run 4/6/2021 3:51 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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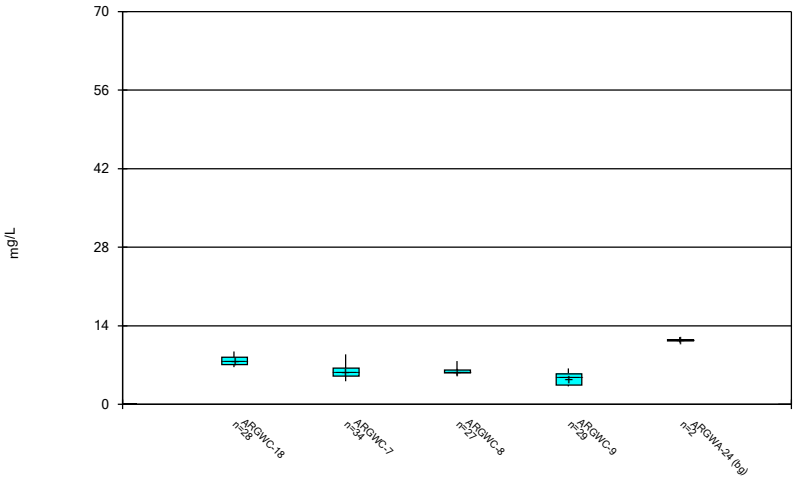
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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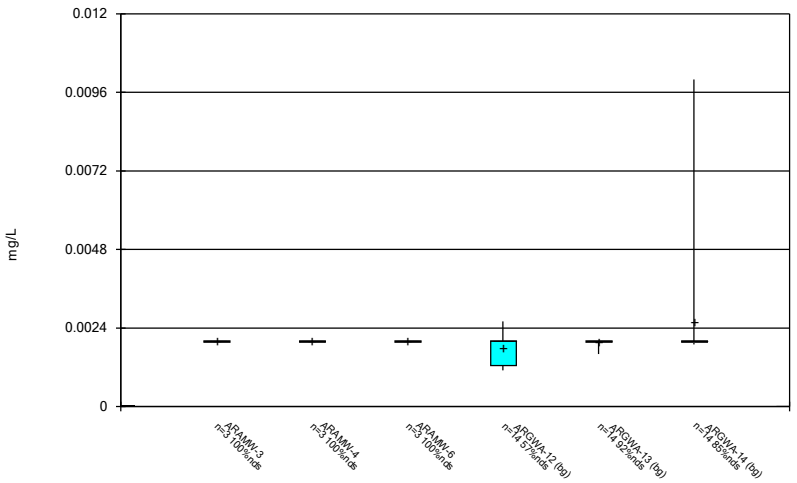
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

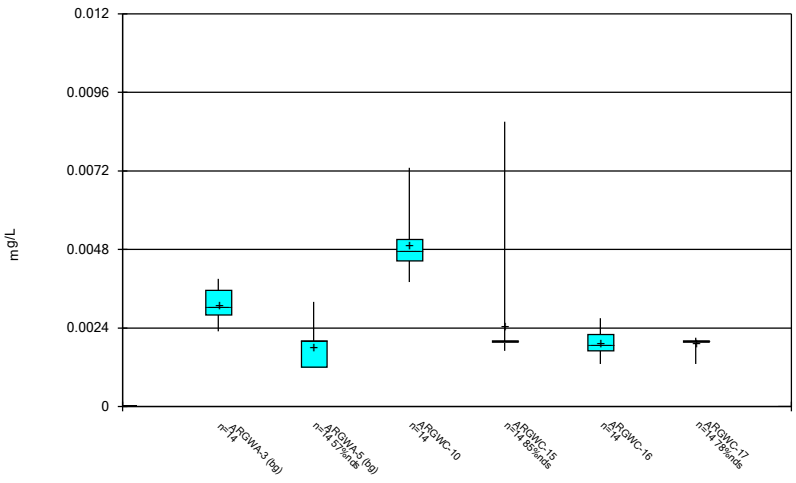


Constituent: Chromium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

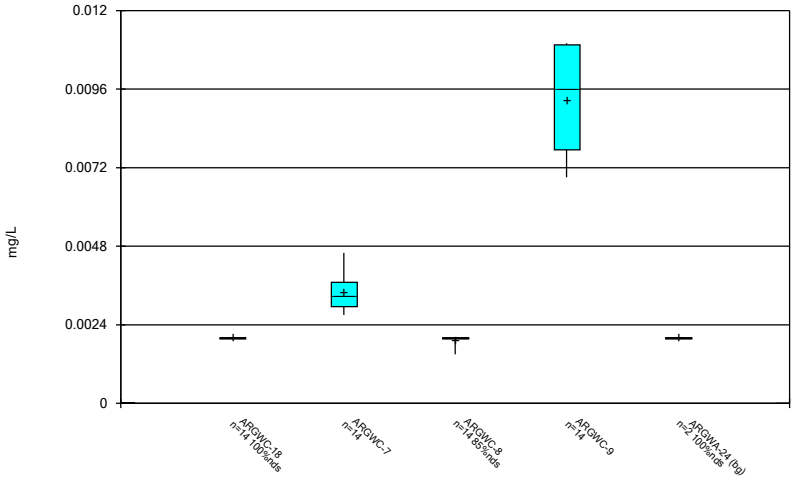


Constituent: Chromium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

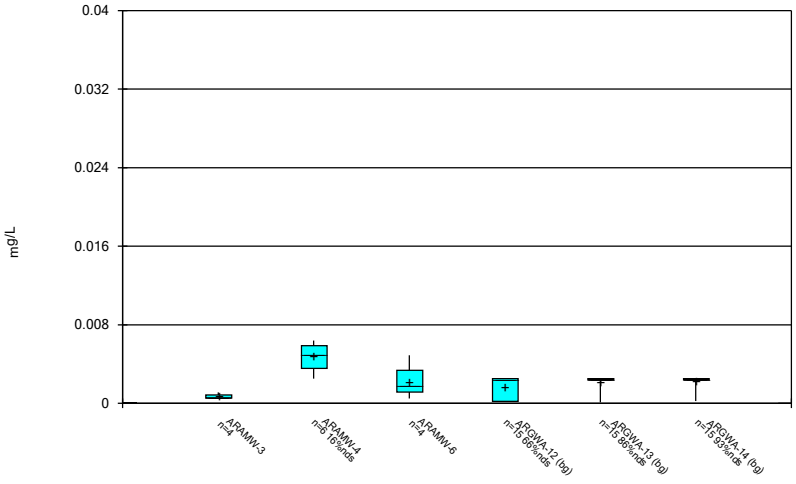


Constituent: Chromium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

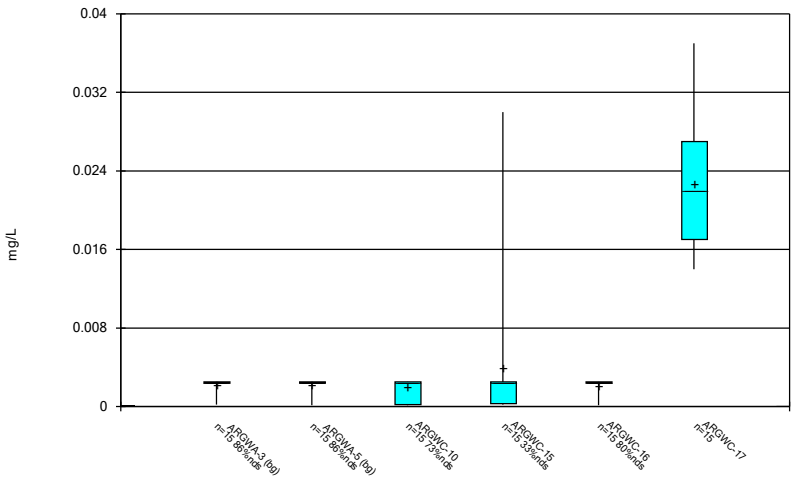


Constituent: Cobalt Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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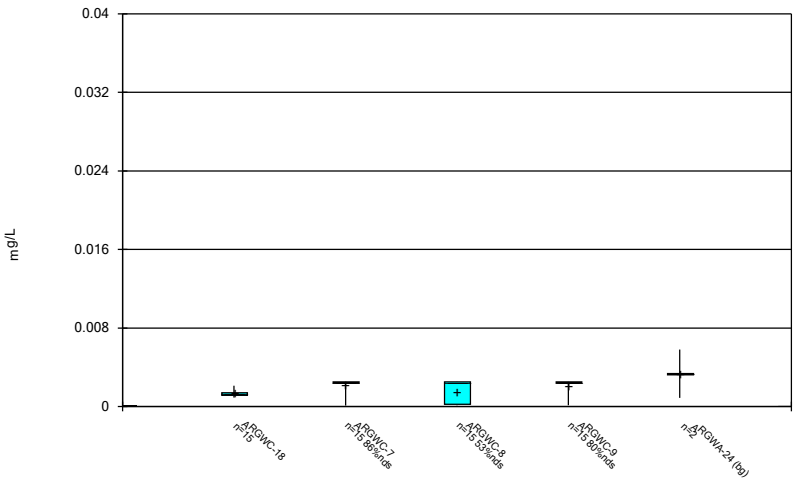
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

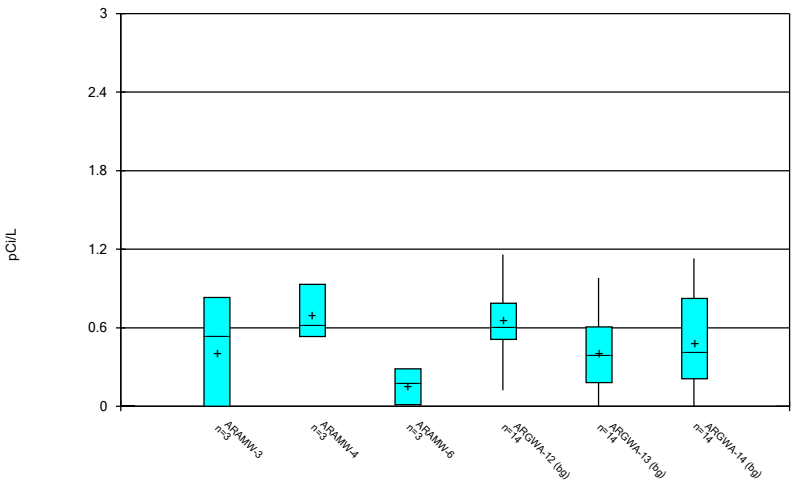


Constituent: Cobalt Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

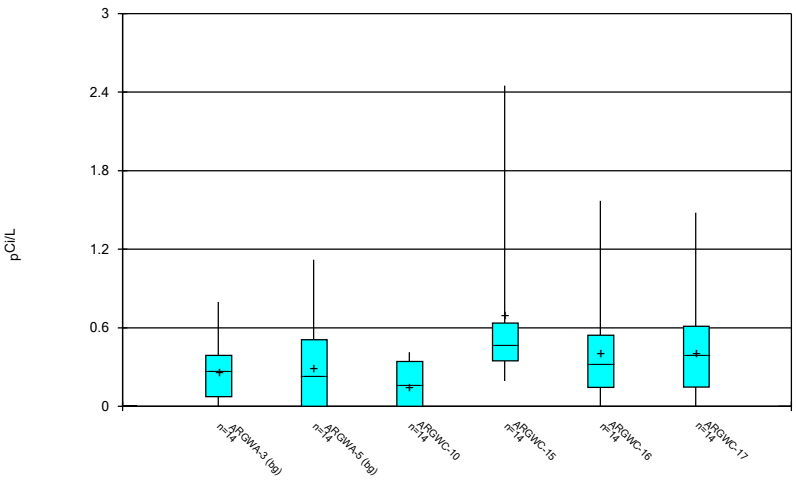


Constituent: Combined Radium 226 + 228 Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

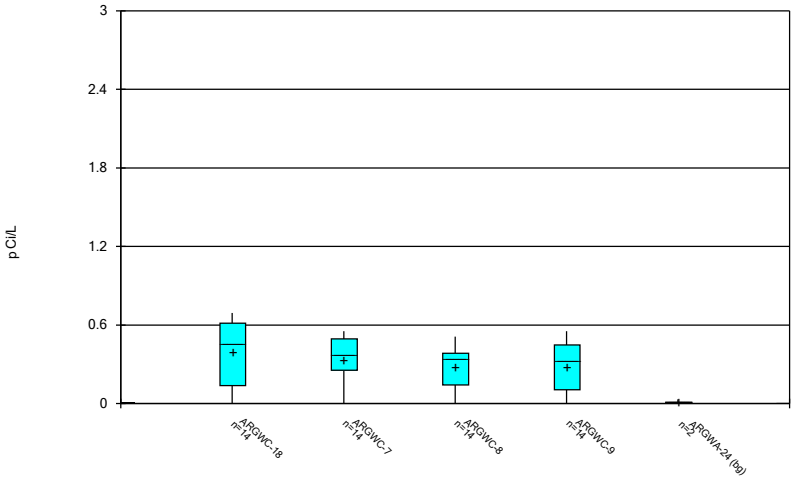


Constituent: Combined Radium 226 + 228 Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

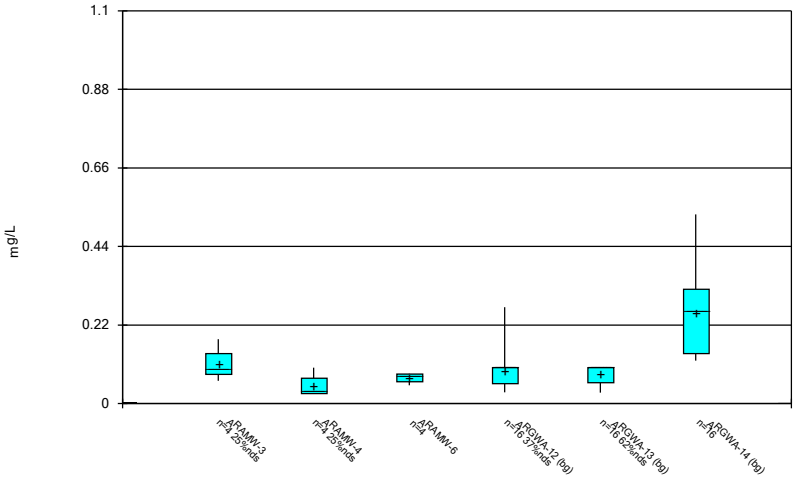


Constituent: Combined Radium 226 + 228 Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

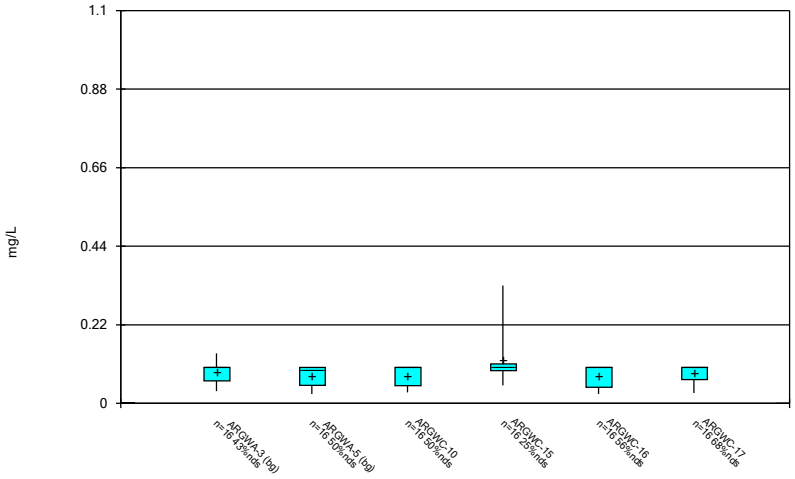


Constituent: Fluoride Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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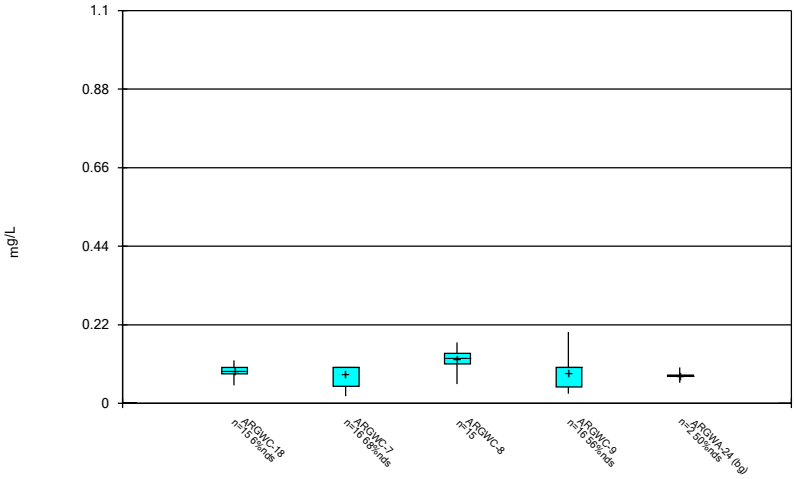
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

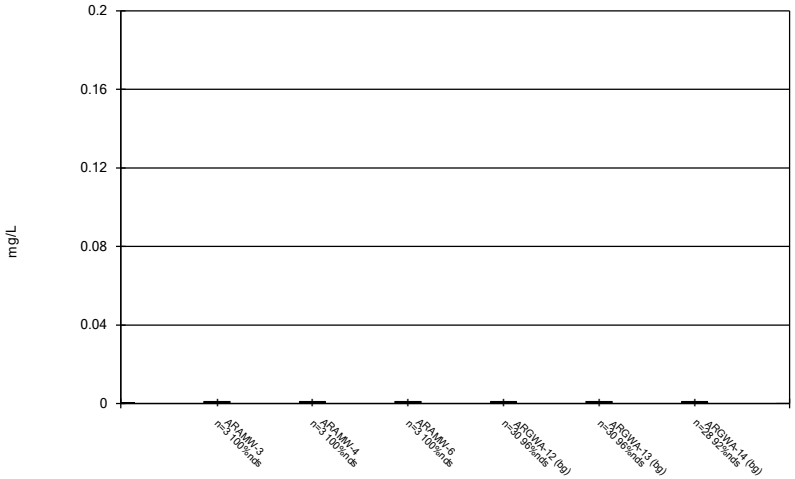


Constituent: Fluoride Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

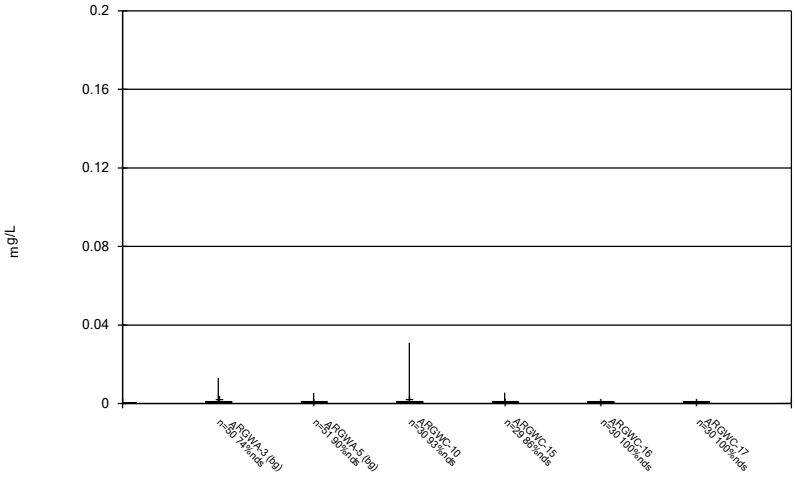


Constituent: Lead Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

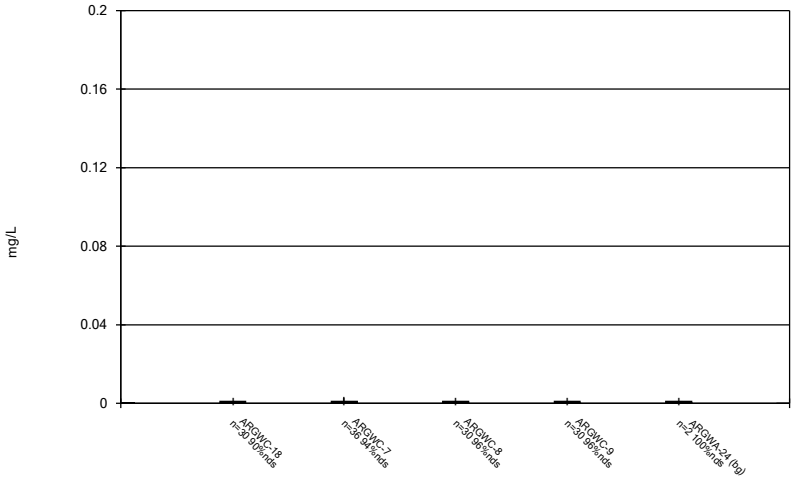


Constituent: Lead Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

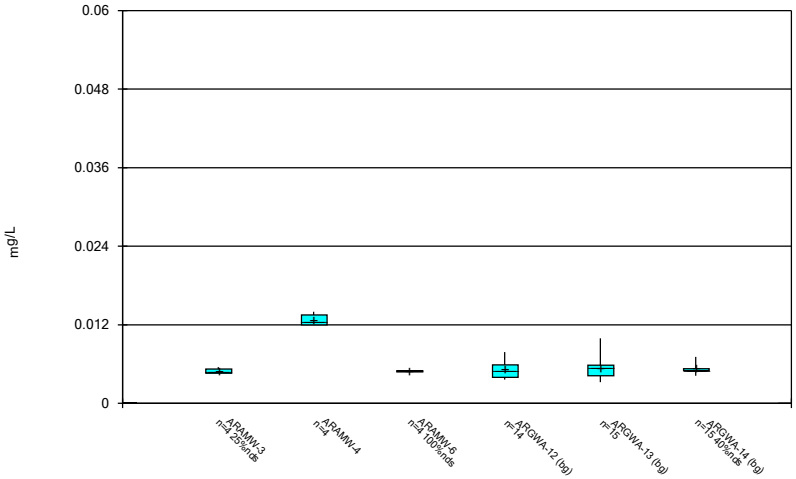


Constituent: Lead Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

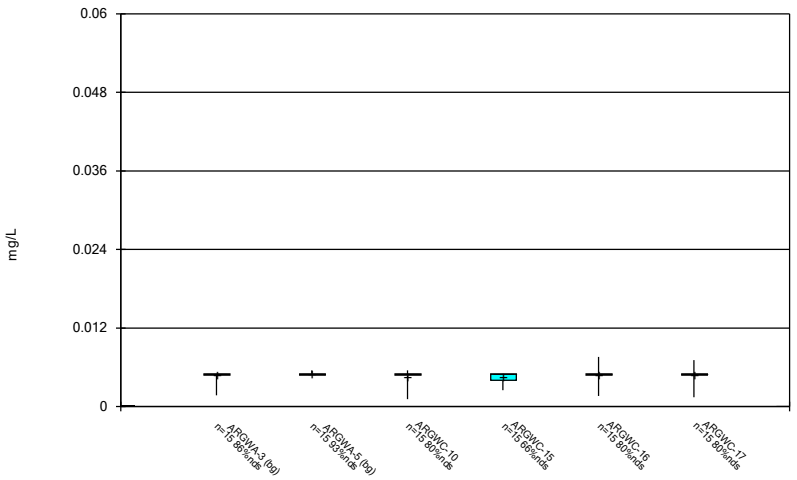


Constituent: Lithium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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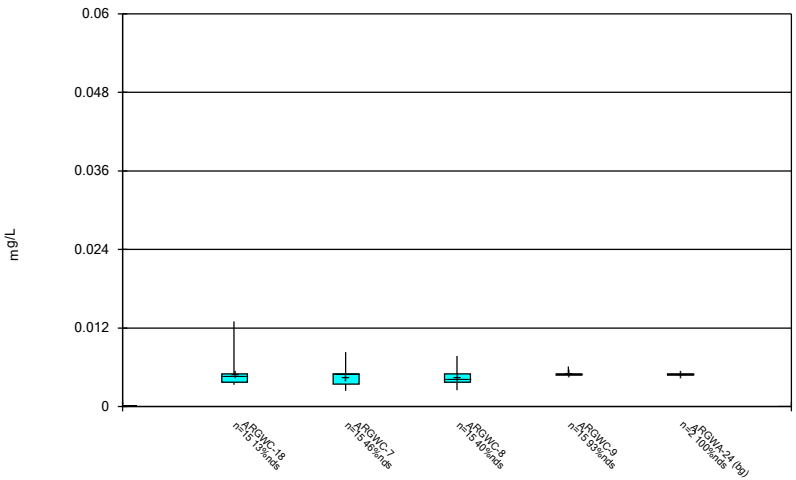
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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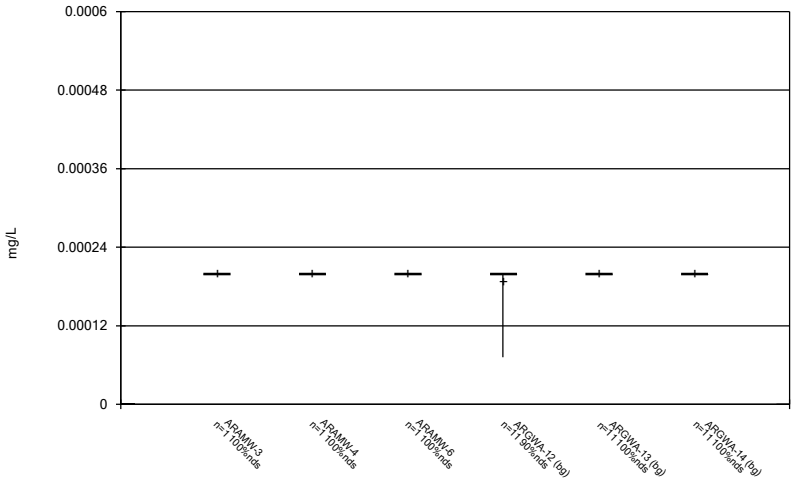
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

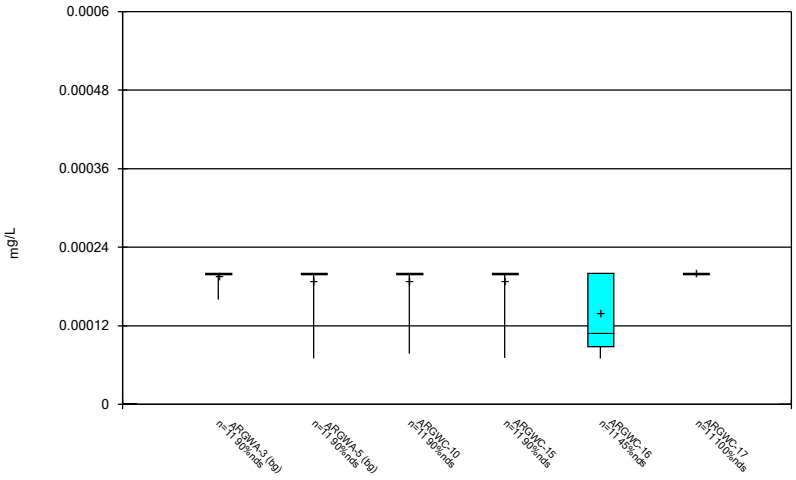


Constituent: Mercury Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

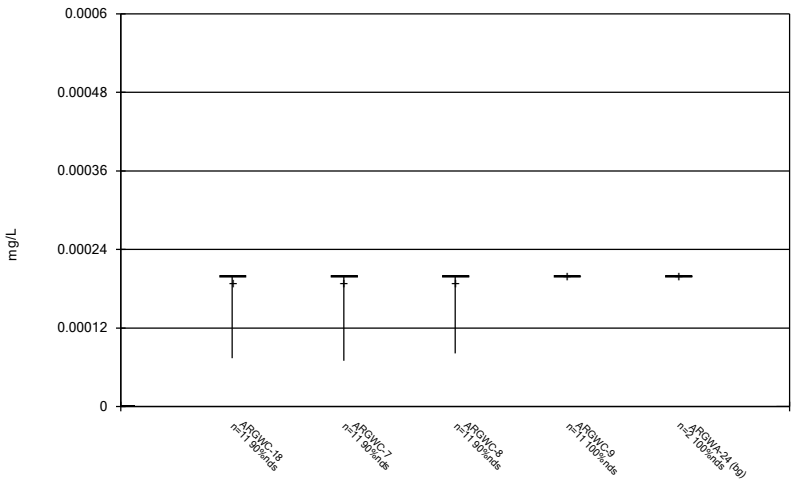


Constituent: Mercury Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

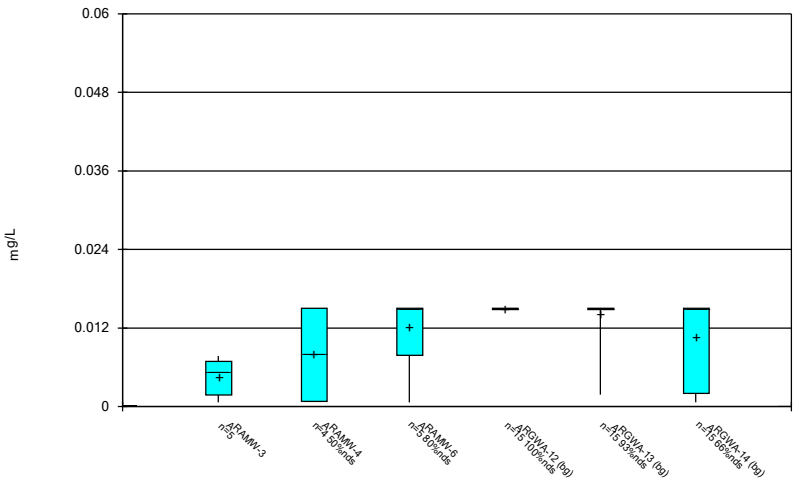


Constituent: Mercury Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

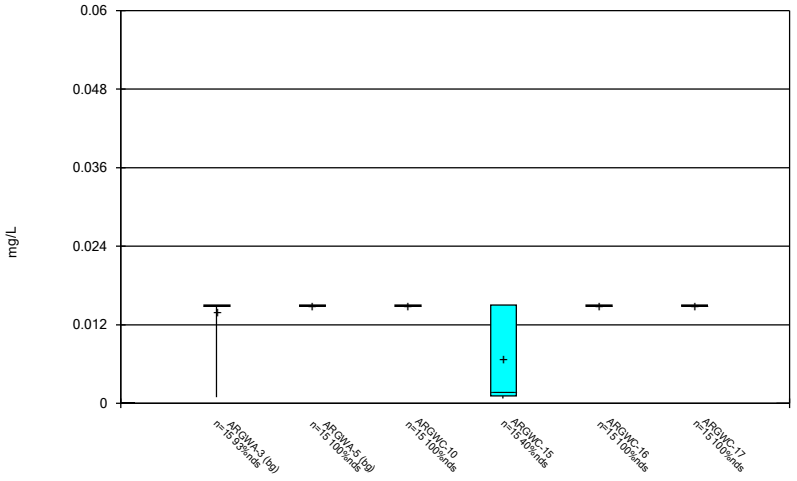


Constituent: Molybdenum Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

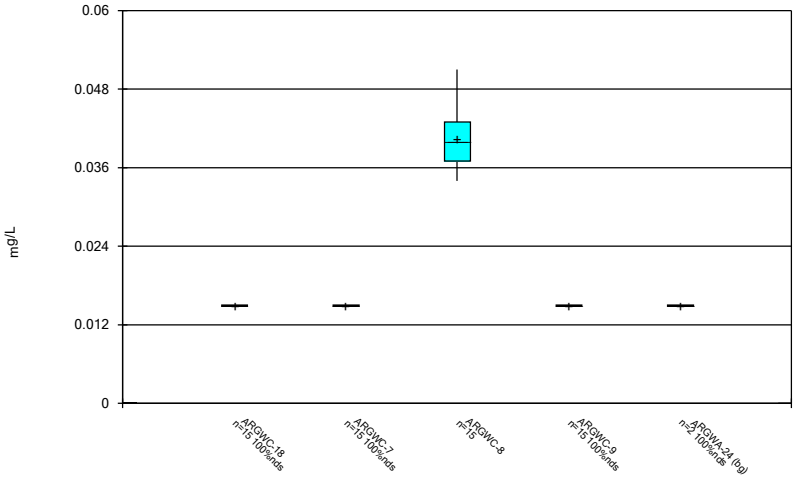


Constituent: Molybdenum Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

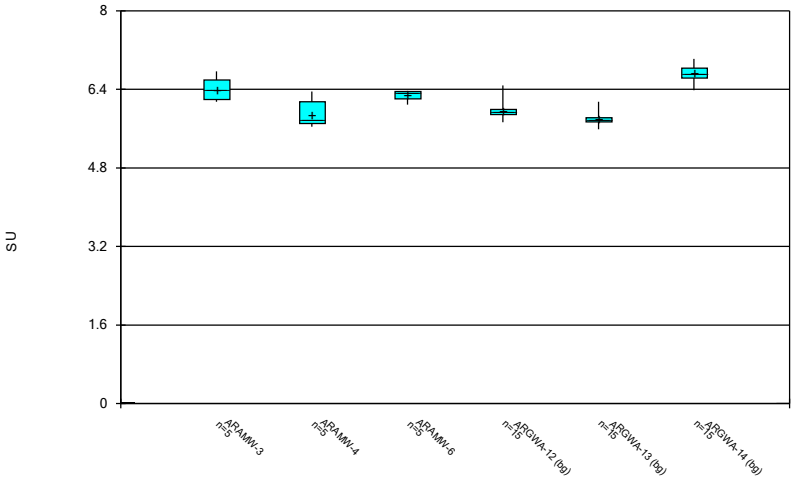


Constituent: Molybdenum Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

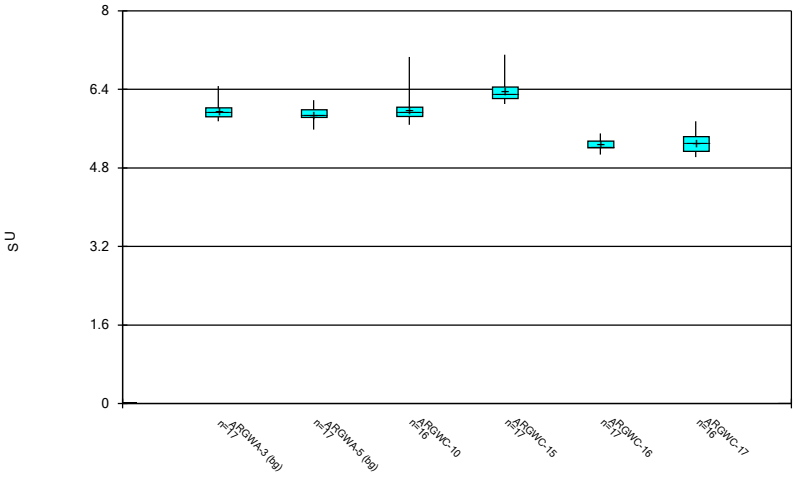


Constituent: pH Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

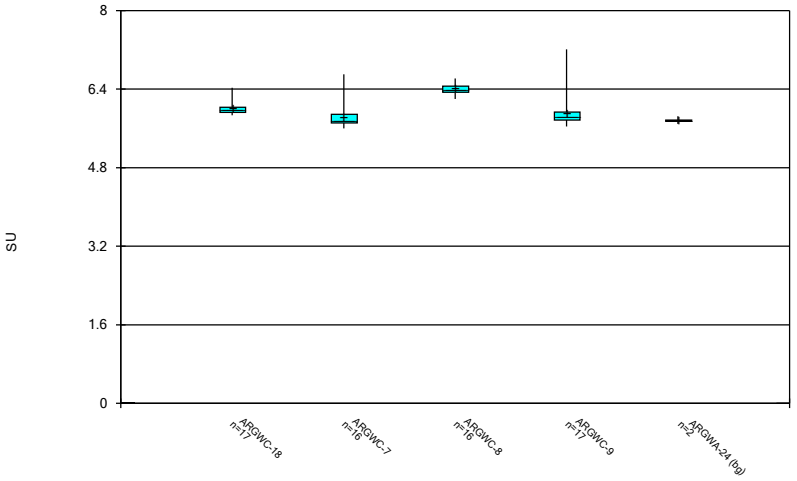


Constituent: pH Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

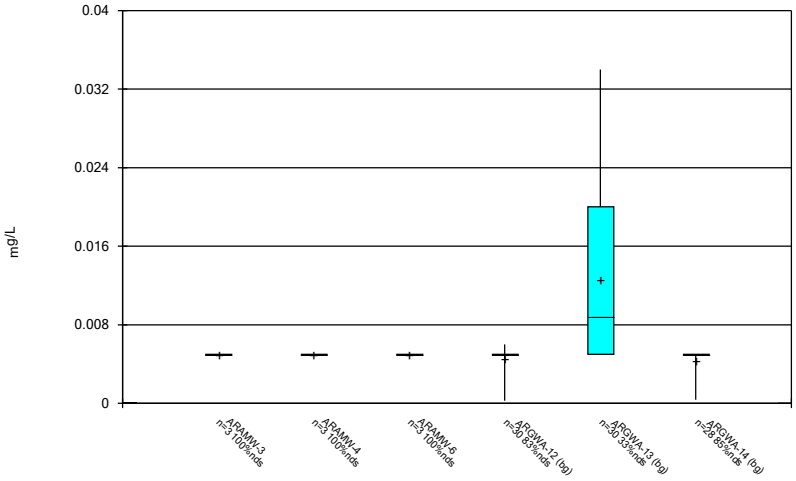


Constituent: pH Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

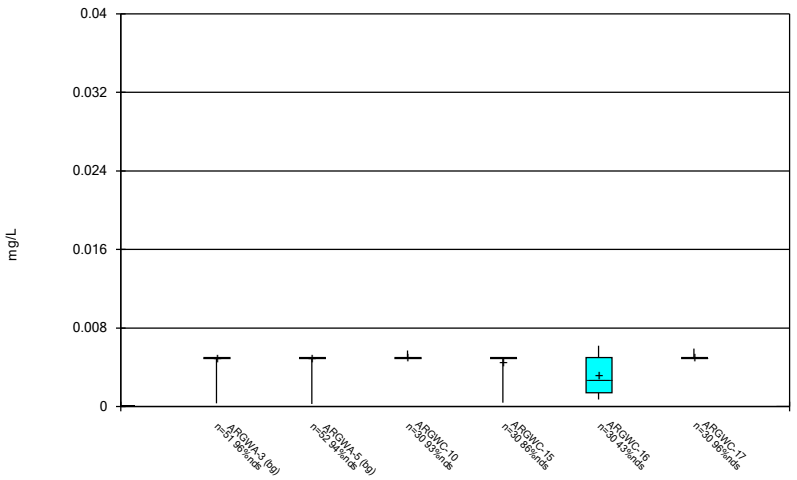


Constituent: Selenium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

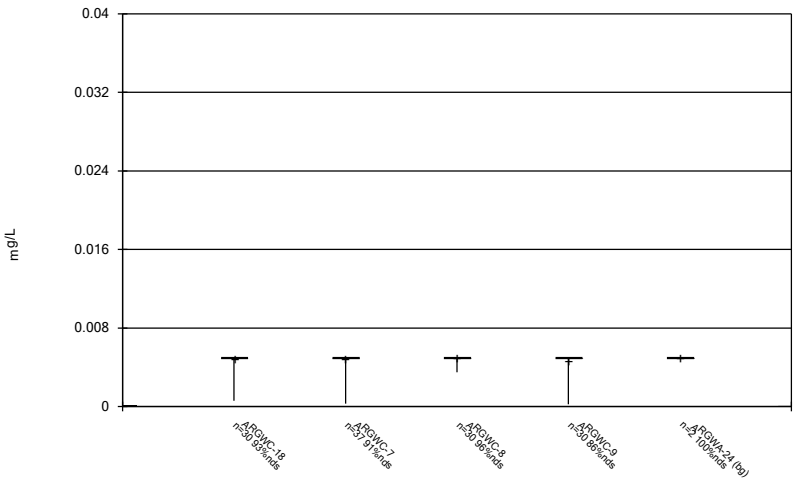


Constituent: Selenium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

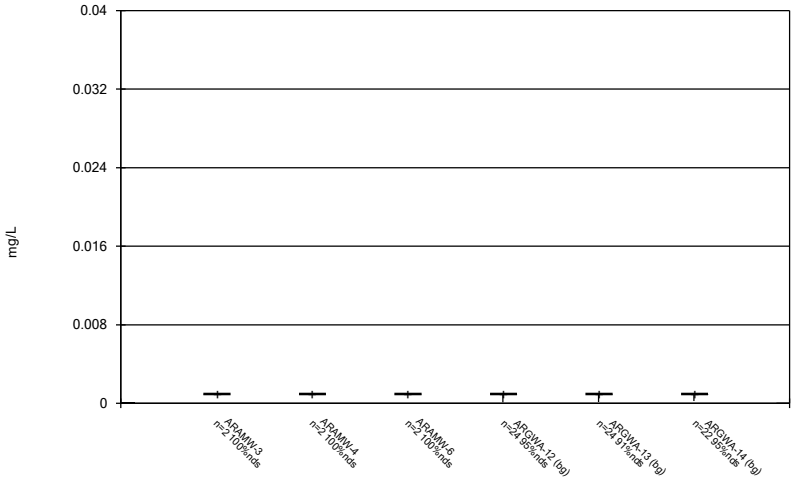


Constituent: Selenium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

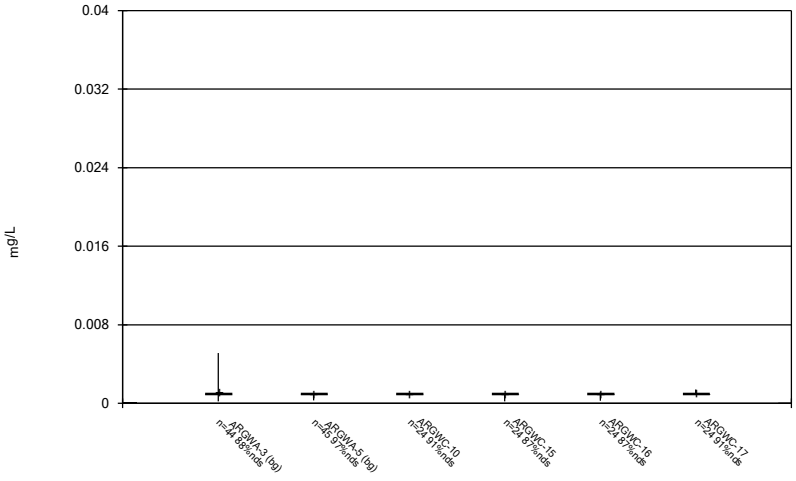


Constituent: Silver Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

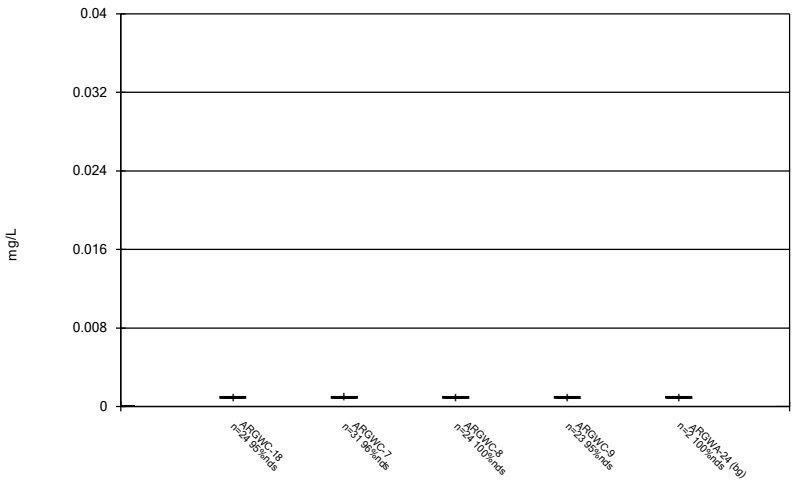


Constituent: Silver Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

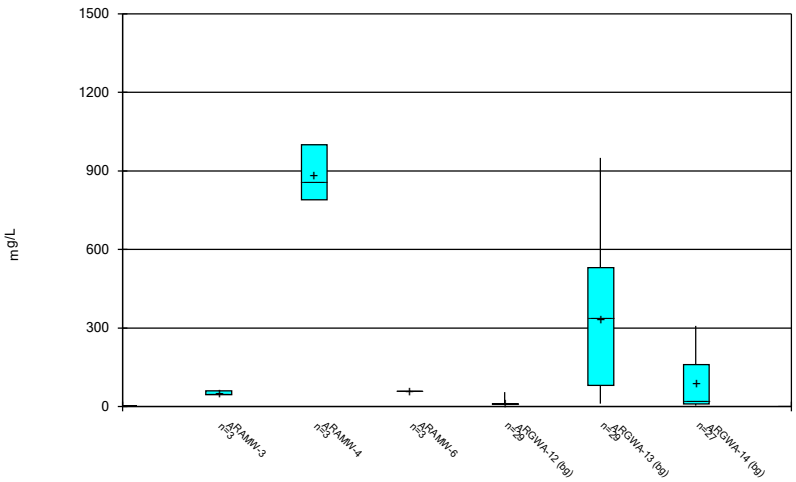


Constituent: Silver Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

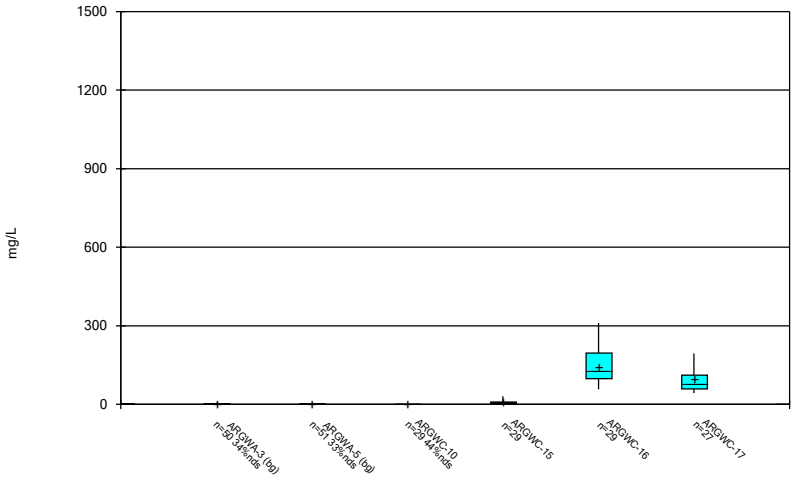


Constituent: Sulfate Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

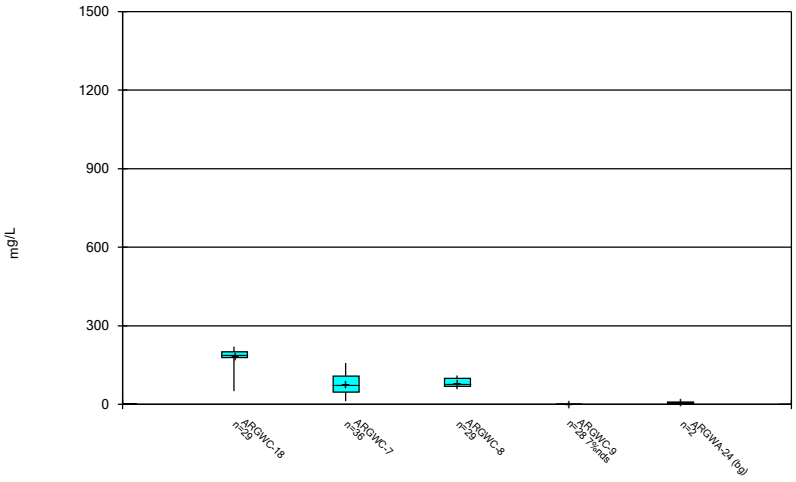


Constituent: Sulfate Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

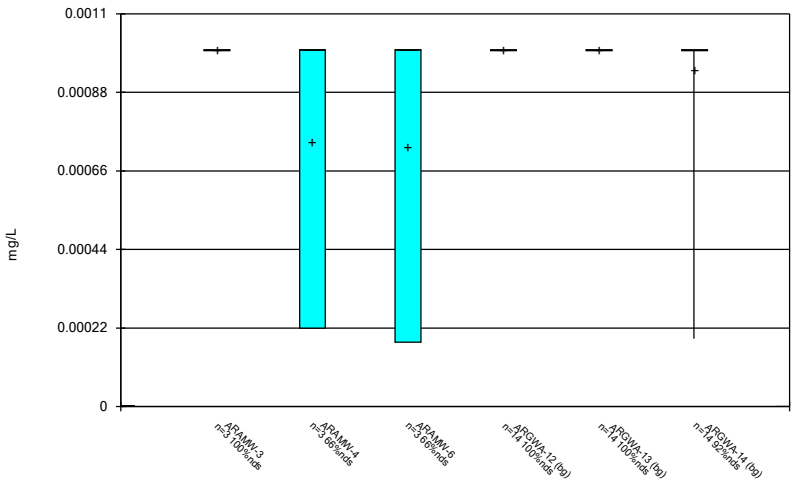


Constituent: Sulfate Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

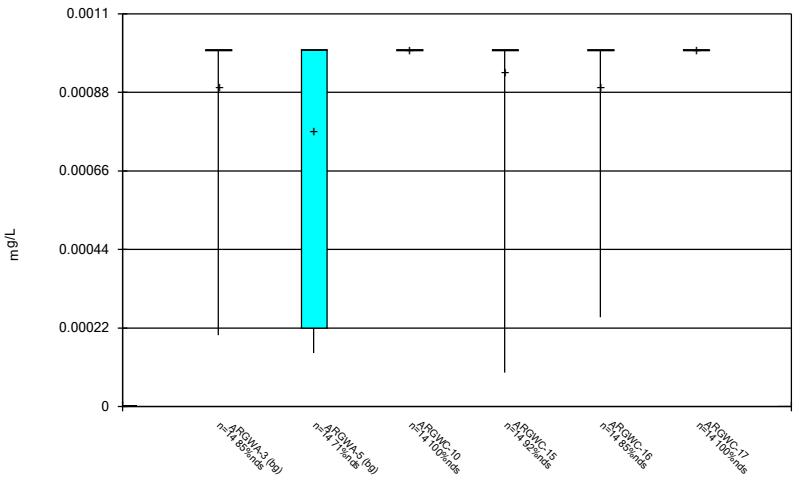


Constituent: Thallium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot

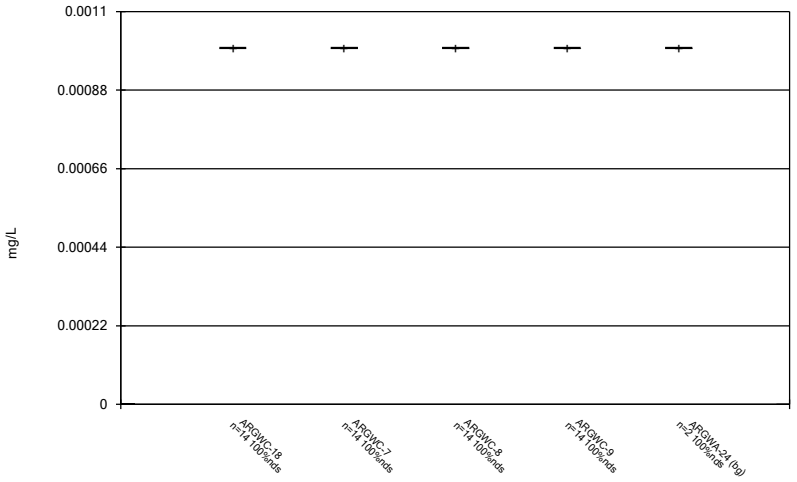


Constituent: Thallium Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



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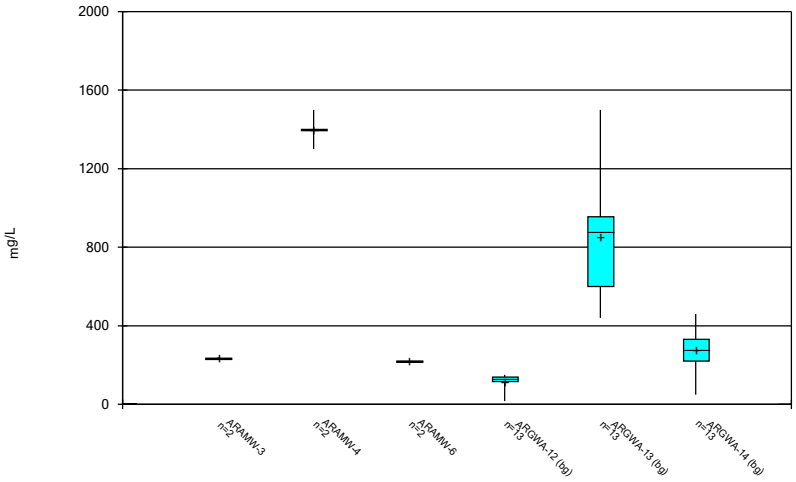
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

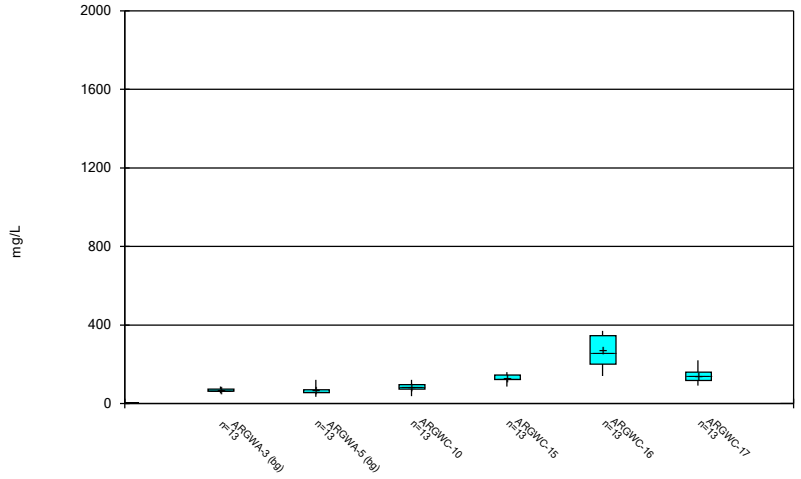
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:51 PM

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

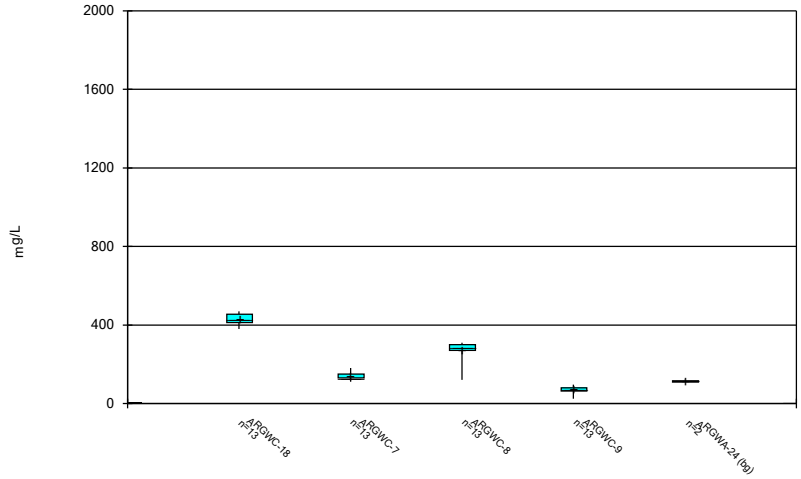
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:51 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:51 PM
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

FIGURE C.

Outlier Summary

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 3/30/2021, 4:41 PM

	ARGWC-10 Arsenic (mg/L)	ARGWC-16 Arsenic (mg/L)	ARGWC-17 Arsenic (mg/L)	ARGWC-18 Arsenic (mg/L)	ARGWC-9 Arsenic (mg/L)	ARGWA-12 Barium (mg/L)	ARGWA-3 Barium (mg/L)	ARGWC-10 Barium (mg/L)	ARGWC-15 Barium (mg/L)	ARGWC-16 Barium (mg/L)
12/16/1997							2.12 (o)			
6/30/1998										
12/2/1998										
12/10/2003										
12/14/2004										
10/30/2006							<0.001 (o)			
11/17/2007										
5/2/2008										
5/12/2009		0.003 (o)		0.0025 (o)						0.16 (o)
5/13/2009	0.0042 (o)				0.0034 (o)			0.15 (o)		
5/25/2010						0.038 (o)				
11/9/2010										
5/19/2011										
11/9/2011										
11/12/2011										
5/30/2012										
11/9/2012			0.01 (o)							
11/11/2012										
5/9/2013										
5/13/2013									0.2 (o)	
11/5/2013										
11/6/2013										
5/21/2014										
5/29/2014										
11/19/2014										
8/30/2016										
8/31/2016										
10/24/2016										
10/25/2016										
10/26/2016										
10/8/2019										

Outlier Summary

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 3/30/2021, 4:41 PM

	ARGWC-17 Barium (mg/L)	ARGWC-18 Barium (mg/L)	ARGWC-9 Barium (mg/L)	ARGWA-3 Cadmium (mg/L)	ARGWA-12 Chloride (mg/L)	ARGWA-14 Chloride (mg/L)	ARGWC-15 Chloride (mg/L)	ARGWC-18 Chloride (mg/L)	ARGWC-7 Chloride (mg/L)	ARGWC-8 Chloride (mg/L)
12/16/1997				0.103 (o)						
6/30/1998				0.007 (o)						
12/2/1998				0.007 (o)						
12/10/2003										
12/14/2004										
10/30/2006										
11/17/2007									13.5 (o)	
5/2/2008									12.9 (o)	
5/12/2009										
5/13/2009			0.14 (o)							
5/25/2010										
11/9/2010										<0.071 (o)
5/19/2011						28.2 (o)				
11/9/2011						32.8 (o)				
11/12/2011		0.092 (o)						12.3 (o)		
5/30/2012						30.8 (o)				
11/9/2012	0.4 (o)									
11/11/2012						24.6 (o)				
5/9/2013						27.2 (o)				
5/13/2013										
11/5/2013		0.087 (o)								
11/6/2013										
5/21/2014										7.34 (o)
5/29/2014						20 (o)				
11/19/2014						19 (o)				
8/30/2016										
8/31/2016										
10/24/2016										
10/25/2016										
10/26/2016										
10/8/2019					64 (o)		9.4 (o)			

Outlier Summary

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 3/30/2021, 4:41 PM

	ARGWC-18 Fluoride (mg/L)	ARGWC-8 Fluoride (mg/L)	ARGWA-3 Lead (mg/L)	ARGWA-5 Lead (mg/L)	ARGWC-15 Lead (mg/L)	ARGWC-7 Lead (mg/L)	ARGWA-12 Lithium (mg/L)	ARGWA-12 pH (SU)	ARGWA-13 pH (SU)	ARGWA-14 pH (SU)
12/16/1997			0.162 (o)							
6/30/1998										
12/2/1998										
12/10/2003										
12/14/2004				0.013 (o)						
10/30/2006										
11/17/2007										
5/2/2008						0.008 (o)				
5/12/2009										
5/13/2009										
5/25/2010										
11/9/2010										
5/19/2011										
11/9/2011										
11/12/2011										
5/30/2012										
11/9/2012										
11/11/2012										
5/9/2013										
5/13/2013					0.025 (o)					
11/5/2013										
11/6/2013										
5/21/2014										
5/29/2014										
11/19/2014										
8/30/2016								6.82 (o)		
8/31/2016									6.67 (o)	7.55 (o)
10/24/2016							<0.05 (o)			
10/25/2016										
10/26/2016	0.32 (o)	0.43 (o)								
10/8/2019										

Outlier Summary

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 3/30/2021, 4:41 PM

	ARGWA-3 Silver (mg/L)	ARGWA-5 Silver (mg/L)	ARGWC-9 Silver (mg/L)	ARGWC-17 Sulfate (mg/L)	ARGWC-9 Sulfate (mg/L)
12/16/1997	0.035 (o)				
6/30/1998					
12/2/1998					
12/10/2003		0.002 (o)			
12/14/2004					
10/30/2006					
11/17/2007					
5/2/2008					
5/12/2009					
5/13/2009			0.0024 (o)		
5/25/2010					
11/9/2010					
5/19/2011					
11/9/2011					
11/12/2011					
5/30/2012					
11/9/2012				842 (o)	
11/11/2012					
5/9/2013					
5/13/2013					
11/5/2013					
11/6/2013				471 (o)	
5/21/2014					
5/29/2014					
11/19/2014					
8/30/2016					
8/31/2016					
10/24/2016					
10/25/2016					4.7 (o)
10/26/2016					
10/8/2019					

FIGURE D.

Appendix I - Interwell Prediction Limits - All Results (No Significant)

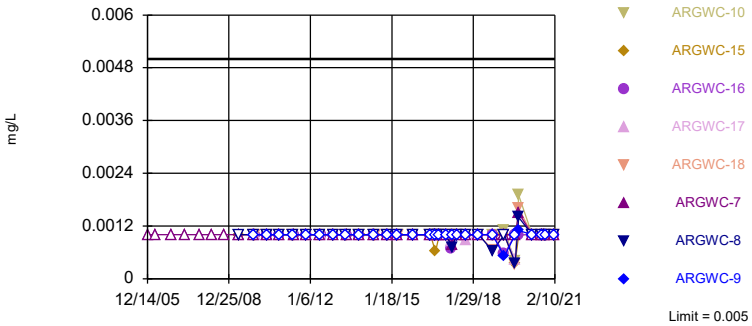
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 12:39 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-15	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-16	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-17	0.005	n/a	2/9/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-18	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-7	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-8	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-9	0.005	n/a	2/10/2021	0.001ND	No	193	n/a	n/a	80.31	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-10	0.24	n/a	2/9/2021	0.031	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-15	0.24	n/a	2/9/2021	0.029	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-16	0.24	n/a	2/9/2021	0.044	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-17	0.24	n/a	2/9/2021	0.051	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-18	0.24	n/a	2/10/2021	0.038	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-7	0.24	n/a	2/10/2021	0.041	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-8	0.24	n/a	2/10/2021	0.049	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-9	0.24	n/a	2/10/2021	0.038	No	190	n/a	n/a	0	n/a	n/a	0.00005487	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-10	0.013	n/a	2/9/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-15	0.013	n/a	2/9/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-18	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-7	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-8	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-9	0.013	n/a	2/10/2021	0.001ND	No	191	n/a	n/a	88.48	n/a	n/a	0.0000543	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-10	0.034	n/a	2/9/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-15	0.034	n/a	2/9/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-16	0.034	n/a	2/9/2021	0.0019J	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-17	0.034	n/a	2/9/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-18	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-7	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-8	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-9	0.034	n/a	2/10/2021	0.005ND	No	193	n/a	n/a	82.38	n/a	n/a	0.00005316	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-10	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-15	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-16	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-17	0.0051	n/a	2/9/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-18	0.0051	n/a	2/10/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-7	0.0051	n/a	2/10/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-9	0.0051	n/a	2/10/2021	0.001ND	No	161	n/a	n/a	93.79	n/a	n/a	0.00007569	NP Inter (NDs) 1 of 2

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



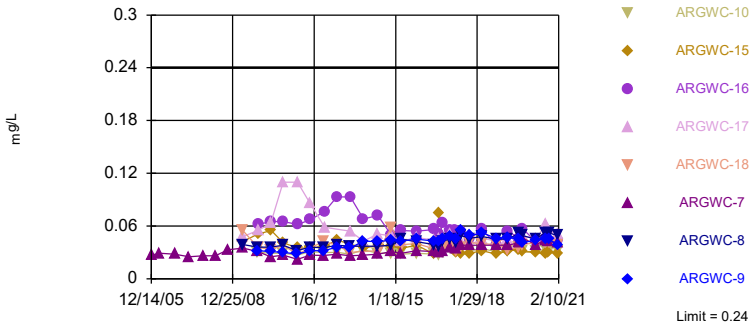
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 193 background values. 80.31% NDs. Annual per-constituent alpha = 0.0008502. Individual comparison alpha = 0.00005316 (1 of 2). Comparing 8 points to limit.

Constituent: Arsenic Analysis Run 4/6/2021 12:38 PM View: Appendix I
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Within Limit

Prediction Limit

Interwell Non-parametric



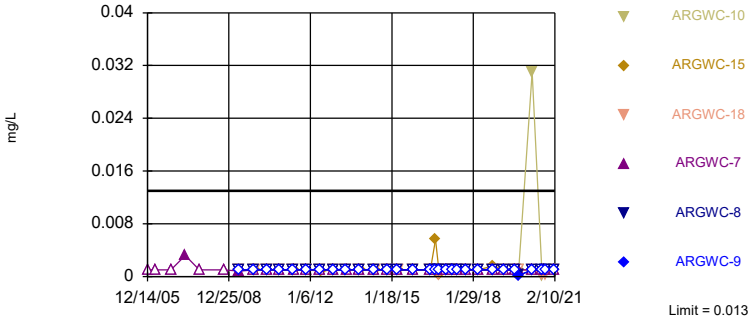
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 190 background values. Annual per-constituent alpha = 0.0008776. Individual comparison alpha = 0.00005487 (1 of 2). Comparing 8 points to limit.

Constituent: Barium Analysis Run 4/6/2021 12:38 PM View: Appendix I
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



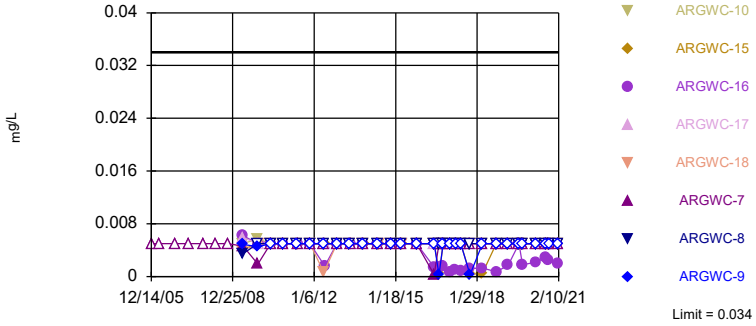
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 191 background values. 88.48% NDs. Annual per-constituent alpha = 0.0008685. Individual comparison alpha = 0.0000543 (1 of 2). Comparing 6 points to limit. Assumes 2 future values.

Constituent: Lead Analysis Run 4/6/2021 12:38 PM View: Appendix I
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



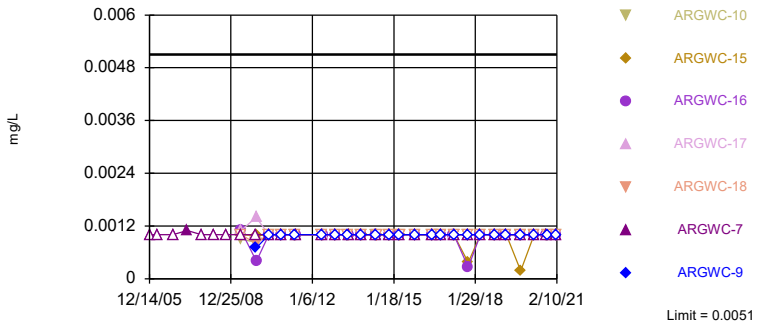
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 193 background values. 82.38% NDs. Annual per-constituent alpha = 0.0008502. Individual comparison alpha = 0.00005316 (1 of 2). Comparing 8 points to limit.

Constituent: Selenium Analysis Run 4/6/2021 12:38 PM View: Appendix I
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 161 background values. 93.79% NDs. Annual per-constituent alpha = 0.00121. Individual comparison alpha = 0.00007569 (1 of 2). Comparing 7 points to limit. Assumes 1 future value.

Constituent: Silver Analysis Run 4/6/2021 12:38 PM View: Appendix I
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-10
12/16/1997	<0.001	0.002							
6/30/1998	<0.001	0.0006							
12/2/1998	<0.001	0.0007							
6/8/1999	<0.001	<0.001							
12/7/1999	<0.001	<0.001							
6/15/2000	<0.001	<0.001							
12/12/2000	0.00032	0.000475							
12/5/2001	0.0003	<0.001							
6/26/2002	0.000939	0.000431							
12/3/2002	<0.001	<0.001							
6/11/2003	<0.001	<0.001							
12/10/2003	<0.001	<0.001							
6/15/2004	<0.001	<0.001							
12/14/2004	<0.001	<0.001							
6/2/2005	<0.001	<0.001							
12/14/2005	<0.001	<0.001	<0.001						
4/5/2006	<0.001	<0.001	<0.001						
10/30/2006	<0.001	<0.001	<0.001						
5/10/2007	<0.001	0.0044	<0.001						
11/17/2007	<0.001	<0.001	<0.001						
5/2/2008			<0.001						
5/3/2008	<0.001	<0.001							
10/22/2008	<0.001	<0.001	<0.001						
5/5/2009				<0.001					
5/6/2009	<0.001				<0.001				
5/7/2009		0.0028				0.0013			
5/12/2009							<0.001		
5/13/2009									0.0042 (o)
5/14/2009			<0.001					<0.001	
12/1/2009	<0.001		<0.001						
12/3/2009					<0.001	<0.001		<0.001	<0.001
12/4/2009		<0.001		<0.001			<0.001		
12/5/2009									
5/25/2010	<0.001				<0.001	<0.001	<0.001		
5/26/2010			<0.001					<0.001	<0.001
6/1/2010		<0.001		<0.001					
6/2/2010									
11/9/2010	<0.001				<0.001		<0.001	<0.001	<0.001
11/10/2010		<0.001	<0.001	<0.001		<0.001			
5/18/2011								<0.001	
5/19/2011									<0.001
5/24/2011	<0.001				<0.001		<0.001		
5/25/2011		<0.001	<0.001	<0.001		<0.001			
11/9/2011				<0.001					
11/10/2011	<0.001				<0.001	<0.001			
11/11/2011			<0.001					<0.001	<0.001
11/12/2011		<0.001					<0.001		
5/17/2012			<0.001					<0.001	<0.001
5/18/2012	<0.001				<0.001				
5/30/2012						<0.001	<0.001		
5/31/2012		<0.001		<0.001					
11/9/2012	<0.001		<0.001		<0.001	<0.001	0.01 (o)	<0.001	<0.001

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-10
11/10/2012				<0.001					
11/11/2012		<0.001							
5/7/2013								<0.001	<0.001
5/8/2013	<0.001		<0.001		<0.001		<0.001		
5/9/2013						<0.001			
5/13/2013		<0.001		<0.001					
11/5/2013			<0.001					<0.001	
11/6/2013	<0.001				<0.001		<0.001		<0.001
11/11/2013						<0.001			
11/12/2013		<0.001		<0.001					
5/20/2014	<0.001				<0.001		<0.001		<0.001
5/21/2014			<0.001			<0.001		<0.001	
5/28/2014				<0.001					
5/29/2014		<0.001							
11/17/2014	<0.001		<0.001				<0.001		
11/18/2014					<0.001	<0.001		<0.001	<0.001
11/19/2014									
11/20/2014				<0.001					
4/7/2015	<0.001		<0.001			<0.001	<0.001	<0.001	<0.001
4/14/2015		<0.001		<0.001	<0.001				
4/15/2015									
10/28/2015	<0.001		<0.001			<0.001	<0.001	<0.001	<0.001
10/29/2015					<0.001				
11/3/2015		<0.001		<0.001					
11/4/2015									
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
6/24/2016							<0.001		
8/30/2016	<0.001				<0.001				
8/31/2016		<0.001	<0.001			<0.001		<0.001	
9/1/2016							<0.001		<0.001
9/2/2016				0.00062 (J)					
10/24/2016					<0.001				
10/25/2016	<0.001	<0.001	<0.001			<0.001	<0.001		<0.001
10/26/2016				<0.001				<0.001	
1/23/2017					<0.001				
1/24/2017	<0.001	<0.001				<0.001			
1/26/2017			<0.001	<0.001			<0.001	<0.001	
1/27/2017									<0.001
4/11/2017	0.00077 (J)	0.00067 (J)			0.00076 (J)	0.00063 (J)	0.00084 (J)		
4/12/2017			0.00078 (J)	<0.001				0.00072 (J)	<0.001
6/20/2017	0.00052 (J)	0.00064 (J)							
6/21/2017				<0.001	<0.001	<0.001	<0.001	<0.001	
6/22/2017			<0.001						<0.001
10/25/2017	<0.001	<0.001	<0.001		<0.001	<0.001			
10/26/2017				<0.001			0.00087 (J)	<0.001	<0.001
4/9/2018						<0.001			
4/10/2018	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		
4/11/2018								<0.001	<0.001
10/16/2018	<0.001	<0.001			<0.001	0.00055 (J)			
10/17/2018			<0.001	<0.001			<0.001	0.00063 (J)	<0.001
3/26/2019						0.00089 (J)			
3/27/2019	0.00055 (J)	0.00055 (J)		<0.001	0.00049 (J)				

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-8	ARGWC-10
3/28/2019			<0.001				<0.001	<0.001	0.0011 (J)
8/19/2019						0.00045 (J)			
8/20/2019	0.00058 (J)	0.00045 (J)			0.00046 (J)				
8/21/2019			<0.001	0.00036 (J)			0.00044 (J)	0.00036 (J)	0.0004 (J)
10/7/2019									
10/8/2019	<0.001	<0.001		<0.001	<0.001	<0.001			
10/9/2019			0.0015				0.0015	0.0014	0.0019
4/6/2020									
4/7/2020	<0.001	<0.001			<0.001	<0.001			
4/8/2020			<0.001	<0.001			<0.001		<0.001
4/9/2020								<0.001	
8/18/2020	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001		
8/19/2020				<0.001					<0.001
8/20/2020								<0.001	
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
9/30/2020									
10/1/2020								<0.001	<0.001
12/1/2020									
2/9/2021	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001		<0.001
2/10/2021			<0.001					<0.001	
2/11/2021									

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-18	ARGWC-16	ARGWA-14 (bg)	ARGWA-24 (bg)
12/16/1997					
6/30/1998					
12/2/1998					
6/8/1999					
12/7/1999					
6/15/2000					
12/12/2000					
12/5/2001					
6/26/2002					
12/3/2002					
6/11/2003					
12/10/2003					
6/15/2004					
12/14/2004					
6/2/2005					
12/14/2005					
4/5/2006					
10/30/2006					
5/10/2007					
11/17/2007					
5/2/2008					
5/3/2008					
10/22/2008					
5/5/2009					
5/6/2009					
5/7/2009					
5/12/2009		0.0025 (o)	0.003 (o)		
5/13/2009	0.0034 (o)				
5/14/2009					
12/1/2009					
12/3/2009	<0.001				
12/4/2009		<0.001			
12/5/2009			<0.001		
5/25/2010		<0.001			
5/26/2010	<0.001		<0.001		
6/1/2010					
6/2/2010				<0.001	
11/9/2010	<0.001		<0.001		
11/10/2010		<0.001		<0.001	
5/18/2011					
5/19/2011	<0.001	<0.001		<0.001	
5/24/2011			<0.001		
5/25/2011					
11/9/2011				<0.001	
11/10/2011					
11/11/2011	<0.001				
11/12/2011		<0.001	<0.001		
5/17/2012	<0.001	<0.001			
5/18/2012					
5/30/2012			<0.001	0.0026 (J)	
5/31/2012					
11/9/2012	<0.001		<0.001		

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-18	ARGWC-16	ARGWA-14 (bg)	ARGWA-24 (bg)
11/10/2012		<0.001			
11/11/2012				<0.001	
5/7/2013	<0.001	<0.001			
5/8/2013					
5/9/2013				<0.001	
5/13/2013			<0.001		
11/5/2013		<0.001			
11/6/2013	<0.001		<0.001		
11/11/2013				<0.001	
11/12/2013					
5/20/2014					
5/21/2014	<0.001		<0.001		
5/28/2014		<0.001			
5/29/2014				0.005 (J)	
11/17/2014			<0.001		
11/18/2014	<0.001				
11/19/2014		<0.001		<0.001	
11/20/2014					
4/7/2015	<0.001		<0.001		
4/14/2015				<0.001	
4/15/2015		<0.001			
10/28/2015	<0.001		<0.001		
10/29/2015		<0.001			
11/3/2015					
11/4/2015				<0.001	
6/23/2016	<0.001			0.0026	
6/24/2016		<0.001	<0.001		
8/30/2016					
8/31/2016	<0.001			0.0032	
9/1/2016		<0.001	<0.001		
9/2/2016					
10/24/2016					
10/25/2016	<0.001		<0.001	<0.001	
10/26/2016		<0.001			
1/23/2017				0.00088 (J)	
1/24/2017					
1/26/2017	<0.001		<0.001		
1/27/2017		<0.001			
4/11/2017			0.00067 (J)	0.00095 (J)	
4/12/2017	<0.001	<0.001			
6/20/2017				0.00099 (J)	
6/21/2017		<0.001	<0.001		
6/22/2017	<0.001				
10/25/2017	<0.001	<0.001		<0.001	
10/26/2017			<0.001		
4/9/2018				<0.001	
4/10/2018			<0.001		
4/11/2018	<0.001	<0.001			
10/16/2018			<0.001	0.00083 (J)	
10/17/2018	<0.001	0.00066 (J)			
3/26/2019					
3/27/2019		<0.001		0.0013	

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-18	ARGWC-16	ARGWA-14 (bg)	ARGWA-24 (bg)
3/28/2019	0.00051 (J)		0.00057 (J)		
8/19/2019					
8/20/2019			<0.001		
8/21/2019	<0.001	0.00033 (J)		0.0013	
10/7/2019				0.00045 (J)	
10/8/2019					
10/9/2019	0.0011	0.0016	0.001		
4/6/2020				<0.001	
4/7/2020					
4/8/2020			<0.001		
4/9/2020	<0.001	<0.001			
8/18/2020					
8/19/2020	<0.001		<0.001	<0.001	
8/20/2020		<0.001			
9/29/2020			<0.001	0.00038 (J)	
9/30/2020		<0.001			
10/1/2020	<0.001				
12/1/2020					<0.001
2/9/2021			<0.001		<0.001
2/10/2021	<0.001	<0.001			
2/11/2021				<0.001	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-17	ARGWC-8
12/16/1997	0.032	2.12 (o)							
6/30/1998	0.028	0.177							
12/2/1998	0.032	0.115							
6/8/1999	0.0287	0.074							
12/7/1999	0.034	0.043							
6/15/2000	0.034	0.113							
12/12/2000	0.027	0.059							
12/5/2001	0.027	0.052							
6/26/2002	0.032	0.087							
12/3/2002	0.023	0.043							
6/11/2003	0.04	0.24							
12/10/2003	0.024	0.03							
6/15/2004	0.021	0.028							
12/14/2004	0.025	0.017							
6/2/2005	0.025	0.019							
12/14/2005	0.026	0.02	0.027						
4/5/2006	0.027	0.019	0.029						
10/30/2006	0.027	<0.001 (o)	0.028						
5/10/2007	0.024	0.017	0.025						
11/17/2007	0.026	0.015	0.026						
5/2/2008			0.026						
5/3/2008	0.022	0.017							
10/22/2008	0.027	0.11	0.033						
5/5/2009				0.042					
5/6/2009	0.023				0.065				
5/7/2009		0.13				0.068			
5/12/2009							0.055	0.048	
5/13/2009									
5/14/2009			0.035						0.039
12/1/2009	0.033		0.031						
12/3/2009					0.062	0.044			0.036
12/4/2009		0.019		0.051			0.036	0.055	
12/5/2009									
5/25/2010	0.03				0.038 (o)	0.049	0.033	0.063	
5/26/2010			0.025						0.036
6/1/2010		0.027		0.055					
6/2/2010									
11/9/2010	0.033				0.059			0.11	0.038
11/10/2010		0.025	0.027	0.041		0.052	0.038		
5/18/2011									0.032
5/19/2011							0.028		
5/24/2011	0.027				0.054			0.11	
5/25/2011		0.015	0.022	0.035		0.045			
11/9/2011				0.035					
11/10/2011	0.032				0.063	0.11			
11/11/2011			0.027						0.036
11/12/2011		0.021					0.092 (o)	0.086	
5/17/2012			0.0265				0.0427		0.0353
5/18/2012	0.0311				0.0646				
5/30/2012						0.0831		0.0586	
5/31/2012		0.0222		0.0372					
11/9/2012	0.034		0.028		0.081	0.13		0.4 (o)	0.038

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-17	ARGWC-8
11/10/2012				0.044			0.038		
11/11/2012		0.022							
5/7/2013							0.03		0.037
5/8/2013	0.026		0.026		0.066			0.054	
5/9/2013						0.059			
5/13/2013		0.019		0.2 (o)					
11/5/2013			0.027				0.087 (o)		0.037
11/6/2013	0.028				0.074			0.043	
11/11/2013						0.12			
11/12/2013		0.025		0.035					
5/20/2014	0.027				0.057			0.051	
5/21/2014			0.028			0.073			0.037
5/28/2014				0.038			0.032		
5/29/2014		0.024							
11/17/2014	0.029		0.031					0.049	
11/18/2014					0.069	0.072			0.038
11/19/2014							0.058		
11/20/2014				0.037					
4/7/2015	0.024		0.029			0.06		0.043	0.045
4/14/2015		0.022		0.035	0.067				
4/15/2015							0.039		
10/28/2015	0.028		0.032			0.057		0.047	0.042
10/29/2015					0.069		0.04		
11/3/2015		0.022		0.038					
11/4/2015									
6/23/2016	0.025	0.019	0.031	0.028	0.063	0.036			0.039
6/24/2016							0.034	0.044	
8/30/2016	0.026				0.062				
8/31/2016		0.018	0.03			0.041			0.037
9/1/2016							0.033	0.046	
9/2/2016				0.074					
10/24/2016					0.0674				
10/25/2016	0.0293	0.016	0.0317			0.0429		0.0436	
10/26/2016				0.0408			0.0339		0.0423
1/23/2017					0.069				
1/24/2017	0.028	0.017				0.025			
1/26/2017			0.035	0.038				0.051	0.046
1/27/2017							0.037		
4/11/2017	0.024	0.016			0.064	0.024		0.043	
4/12/2017			0.034	0.03			0.032		0.041
6/20/2017	0.027	0.02							
6/21/2017				0.028	0.074	0.034	0.036	0.043	0.049
6/22/2017			0.038						
10/25/2017	0.03	0.019	0.038		0.07	0.03	0.041		
10/26/2017				0.029				0.038	0.046
4/9/2018						0.023			
4/10/2018	0.028	0.019	0.038	0.032	0.073			0.046	
4/11/2018							0.04		0.048
10/16/2018	0.027	0.018			0.069	0.028			
10/17/2018			0.038	0.028			0.039	0.043	0.045
3/26/2019						0.029			
3/27/2019	0.024	0.019		0.032	0.063		0.033		

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-17	ARGWC-8
3/28/2019			0.038					0.045	0.045
8/19/2019						0.035			
8/20/2019	0.029	0.02			0.075				
8/21/2019			0.041	0.033			0.036	0.05	0.052
10/7/2019									
10/8/2019	0.03	0.02		0.031	0.078	0.042			
10/9/2019			0.046				0.039	0.049	0.049
4/6/2020									
4/7/2020	0.02	0.018			0.066	0.021			
4/8/2020			0.039	0.03				0.045	
4/9/2020							0.041		0.045
8/18/2020	0.031	0.021	0.044		0.079	0.025		0.062	
8/19/2020				0.028					
8/20/2020							0.041		0.053
9/29/2020	0.03	0.019	0.042	0.03	0.079	0.024		0.056	
9/30/2020							0.041		
10/1/2020									0.052
12/1/2020									
2/9/2021	0.028	0.017		0.029	0.076	0.022		0.051	
2/10/2021			0.041				0.038		0.049
2/11/2021									

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-10	ARGWC-9	ARGWC-16	ARGWA-14 (bg)	ARGWA-24 (bg)
12/16/1997					
6/30/1998					
12/2/1998					
6/8/1999					
12/7/1999					
6/15/2000					
12/12/2000					
12/5/2001					
6/26/2002					
12/3/2002					
6/11/2003					
12/10/2003					
6/15/2004					
12/14/2004					
6/2/2005					
12/14/2005					
4/5/2006					
10/30/2006					
5/10/2007					
11/17/2007					
5/2/2008					
5/3/2008					
10/22/2008					
5/5/2009					
5/6/2009					
5/7/2009					
5/12/2009			0.16 (o)		
5/13/2009	0.15 (o)	0.14 (o)			
5/14/2009					
12/1/2009					
12/3/2009	0.03	0.032			
12/4/2009					
12/5/2009			0.062		
5/25/2010					
5/26/2010	0.029	0.031	0.065		
6/1/2010					
6/2/2010				0.046	
11/9/2010	0.029	0.03	0.065		
11/10/2010				0.057	
5/18/2011					
5/19/2011	0.027	0.028		0.048	
5/24/2011			0.062		
5/25/2011					
11/9/2011				0.045	
11/10/2011					
11/11/2011	0.031	0.032			
11/12/2011			0.067		
5/17/2012	0.0299	0.0319			
5/18/2012					
5/30/2012			0.0767	0.0519	
5/31/2012					
11/9/2012	0.03	0.036	0.093		

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-10	ARGWC-9	ARGWC-16	ARGWA-14 (bg)	ARGWA-24 (bg)
11/10/2012					
11/11/2012				0.051	
5/7/2013	0.028	0.035			
5/8/2013					
5/9/2013				0.056	
5/13/2013			0.093		
11/5/2013					
11/6/2013	0.033	0.043	0.068		
11/11/2013				0.041	
11/12/2013					
5/20/2014	0.029				
5/21/2014		0.042	0.072		
5/28/2014					
5/29/2014				0.051	
11/17/2014			0.05		
11/18/2014	0.029	0.044			
11/19/2014				0.051	
11/20/2014					
4/7/2015	0.028	0.043	0.055		
4/14/2015				0.043	
4/15/2015					
10/28/2015	0.029	0.045	0.054		
10/29/2015					
11/3/2015					
11/4/2015				0.042	
6/23/2016	0.028	0.043		0.084	
6/24/2016			0.056		
8/30/2016					
8/31/2016		0.042		0.076	
9/1/2016	0.027		0.051		
9/2/2016					
10/24/2016					
10/25/2016	0.0296	0.0455	0.0637	0.039	
10/26/2016					
1/23/2017				0.044	
1/24/2017					
1/26/2017		0.048	0.055		
1/27/2017	0.035				
4/11/2017			0.055	0.038	
4/12/2017	0.031	0.045			
6/20/2017				0.057	
6/21/2017			0.054		
6/22/2017	0.035	0.055			
10/25/2017		0.049		0.05	
10/26/2017	0.032		0.046		
4/9/2018				0.049	
4/10/2018			0.056		
4/11/2018	0.034	0.052			
10/16/2018			0.039	0.06	
10/17/2018	0.031	0.046			
3/26/2019					
3/27/2019				0.054	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-10	ARGWC-9	ARGWC-16	ARGWA-14 (bg)	ARGWA-24 (bg)
3/28/2019	0.031	0.047	0.054		
8/19/2019					
8/20/2019			0.046		
8/21/2019	0.035	0.045		0.031	
10/7/2019				0.033	
10/8/2019					
10/9/2019	0.031	0.041	0.057		
4/6/2020				0.051	
4/7/2020					
4/8/2020	0.031		0.042		
4/9/2020		0.044			
8/18/2020					
8/19/2020	0.034	0.046	0.045	0.041	
8/20/2020					
9/29/2020			0.042	0.062	
9/30/2020					
10/1/2020	0.032	0.045			
12/1/2020					0.038
2/9/2021	0.031		0.044		0.036
2/10/2021		0.038			
2/11/2021				0.066	

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10
12/16/1997	<0.001	0.162 (o)							
6/30/1998	<0.001	0.013							
12/2/1998	0.002	0.01							
6/8/1999	<0.001	0.004							
12/7/1999	<0.001	0.004							
6/15/2000	<0.001	0.004							
12/12/2000	<0.001	0.00378							
12/5/2001	<0.001	0.003							
6/26/2002	0.00539	0.00815							
12/3/2002	<0.001	0.008							
6/11/2003	<0.001	<0.001							
12/10/2003	<0.001	<0.001							
6/15/2004	<0.001	<0.001							
12/14/2004	0.013 (o)	<0.001							
6/2/2005	<0.001	<0.001							
12/14/2005	<0.001	<0.001	<0.001						
4/5/2006	<0.001	<0.001	<0.001						
10/30/2006	<0.001	<0.001	<0.001						
5/10/2007	<0.001	<0.001	0.0032						
11/17/2007	<0.001	<0.001	<0.001						
5/2/2008			0.008 (o)						
5/3/2008	<0.001	<0.001							
10/22/2008	<0.001	<0.001	<0.001						
5/5/2009				<0.001					
5/6/2009	<0.001				<0.001				
5/7/2009		<0.001				<0.001			
5/12/2009							<0.001		
5/13/2009								<0.001	<0.001
5/14/2009			0.00083						
12/1/2009	<0.001		<0.001						
12/3/2009					<0.001	<0.001		<0.001	<0.001
12/4/2009		<0.001		<0.001			<0.001		
5/25/2010	<0.001				<0.001	<0.001	<0.001		
5/26/2010			<0.001					<0.001	<0.001
6/1/2010		<0.001		<0.001					
6/2/2010									
11/9/2010	<0.001				<0.001			<0.001	<0.001
11/10/2010		<0.001	<0.001	<0.001		<0.001	<0.001		
5/18/2011									
5/19/2011							<0.001	<0.001	<0.001
5/24/2011	<0.001				<0.001				
5/25/2011		<0.001	<0.001	<0.001		<0.001			
11/9/2011				<0.001					
11/10/2011	<0.001				<0.001	<0.001			
11/11/2011			<0.001					<0.001	<0.001
11/12/2011		<0.001					<0.001		
5/17/2012			<0.001				<0.001	<0.001	<0.001
5/18/2012	<0.001				<0.001				
5/30/2012						<0.001			
5/31/2012		0.0005 (J)		0.0008 (J)					
11/9/2012	<0.001		<0.001		<0.001	<0.001		<0.001	<0.001
11/10/2012				<0.001			<0.001		

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10
11/11/2012		<0.001							
5/7/2013							<0.001	<0.001	<0.001
5/8/2013	<0.001		<0.001		<0.001				
5/9/2013						<0.001			
5/13/2013		<0.001		0.025 (o)					
11/5/2013			<0.001				<0.001		
11/6/2013	<0.001				<0.001			<0.001	<0.001
11/11/2013						<0.001			
11/12/2013		<0.001		<0.001					
5/20/2014	<0.001				<0.001				<0.001
5/21/2014			<0.001			<0.001		<0.001	
5/28/2014				<0.001			<0.001		
5/29/2014		<0.001							
11/17/2014	<0.001		<0.001						
11/18/2014					<0.001	<0.001		<0.001	<0.001
11/19/2014							<0.001		
11/20/2014				<0.001					
4/7/2015	<0.001		<0.001			<0.001		<0.001	<0.001
4/14/2015		<0.001		<0.001	<0.001				
4/15/2015							<0.001		
10/28/2015	<0.001		<0.001			<0.001		<0.001	<0.001
10/29/2015					<0.001		<0.001		
11/3/2015		<0.001		<0.001					
11/4/2015									
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
6/24/2016							<0.001		
8/30/2016	<0.001				<0.001				
8/31/2016		<0.001	<0.001			<0.001		<0.001	
9/1/2016							<0.001		<0.001
9/2/2016				0.0056					
10/24/2016					0.0002 (J)				
10/25/2016	<0.001	<0.001	<0.001			<0.001		<0.001	<0.001
10/26/2016				0.0003 (J)			0.0002 (J)		
1/23/2017					<0.001				
1/24/2017	<0.001	<0.001				<0.001			
1/26/2017			<0.001	<0.001				<0.001	
1/27/2017							<0.001		<0.001
4/11/2017	<0.001	<0.001			<0.001	<0.001			
4/12/2017			<0.001	<0.001			<0.001	<0.001	<0.001
6/20/2017	<0.001	<0.001							
6/21/2017				<0.001	<0.001	<0.001	<0.001		
6/22/2017			<0.001					<0.001	<0.001
10/25/2017	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	
10/26/2017				<0.001					<0.001
4/9/2018						<0.001			
4/10/2018	<0.001	<0.001	<0.001	<0.001	<0.001				
4/11/2018							<0.001	<0.001	<0.001
10/16/2018	<0.001	<0.001			<0.001	<0.001			
10/17/2018			<0.001	0.0016			<0.001	<0.001	<0.001
3/26/2019						<0.001			
3/27/2019	<0.001	<0.001		<0.001	<0.001		<0.001		
3/28/2019			<0.001					<0.001	<0.001

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-9	ARGWC-10
8/19/2019						<0.001			
8/20/2019	0.00014 (J)	0.00014 (J)			<0.001				
8/21/2019			<0.001	<0.001			<0.001	<0.001	<0.001
10/7/2019									
10/8/2019	0.00016 (J)	0.001		<0.001	<0.001	0.00013 (J)			
10/9/2019			<0.001				<0.001	0.00016 (J)	<0.001
4/6/2020									
4/7/2020	<0.001	<0.001			<0.001	<0.001			
4/8/2020			<0.001	<0.001					0.031
4/9/2020							<0.001	<0.001	
8/18/2020	0.00013 (J)	0.00019 (J)	<0.001		<0.001	<0.001			
8/19/2020				<0.001				<0.001	0.00013 (J)
8/20/2020							0.00028 (J)		
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
9/30/2020							0.0002 (J)		
10/1/2020								<0.001	<0.001
12/1/2020									
2/9/2021	<0.001	<0.001		<0.001	<0.001	<0.001			<0.001
2/10/2021			<0.001				<0.001	<0.001	
2/11/2021									

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
12/16/1997			
6/30/1998			
12/2/1998			
6/8/1999			
12/7/1999			
6/15/2000			
12/12/2000			
12/5/2001			
6/26/2002			
12/3/2002			
6/11/2003			
12/10/2003			
6/15/2004			
12/14/2004			
6/2/2005			
12/14/2005			
4/5/2006			
10/30/2006			
5/10/2007			
11/17/2007			
5/2/2008			
5/3/2008			
10/22/2008			
5/5/2009			
5/6/2009			
5/7/2009			
5/12/2009			
5/13/2009			
5/14/2009	<0.001		
12/1/2009			
12/3/2009	<0.001		
12/4/2009			
5/25/2010			
5/26/2010	<0.001		
6/1/2010			
6/2/2010		<0.001	
11/9/2010	<0.001		
11/10/2010		<0.001	
5/18/2011	<0.001		
5/19/2011		<0.001	
5/24/2011			
5/25/2011			
11/9/2011		<0.001	
11/10/2011			
11/11/2011	<0.001		
11/12/2011			
5/17/2012	<0.001		
5/18/2012			
5/30/2012		<0.001	
5/31/2012			
11/9/2012	<0.001		
11/10/2012			

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
11/11/2012		<0.001	
5/7/2013	<0.001		
5/8/2013			
5/9/2013		<0.001	
5/13/2013			
11/5/2013	<0.001		
11/6/2013			
11/11/2013		<0.001	
11/12/2013			
5/20/2014			
5/21/2014	<0.001		
5/28/2014			
5/29/2014		<0.001	
11/17/2014			
11/18/2014	<0.001		
11/19/2014		<0.001	
11/20/2014			
4/7/2015	<0.001		
4/14/2015		<0.001	
4/15/2015			
10/28/2015	<0.001		
10/29/2015			
11/3/2015			
11/4/2015		<0.001	
6/23/2016	<0.001	<0.001	
6/24/2016			
8/30/2016			
8/31/2016	<0.001	<0.001	
9/1/2016			
9/2/2016			
10/24/2016			
10/25/2016		<0.001	
10/26/2016	<0.001		
1/23/2017		0.0013	
1/24/2017			
1/26/2017	<0.001		
1/27/2017			
4/11/2017		<0.001	
4/12/2017	<0.001		
6/20/2017		<0.001	
6/21/2017	<0.001		
6/22/2017			
10/25/2017		<0.001	
10/26/2017	<0.001		
4/9/2018		<0.001	
4/10/2018			
4/11/2018	<0.001		
10/16/2018		<0.001	
10/17/2018	<0.001		
3/26/2019			
3/27/2019		<0.001	
3/28/2019	<0.001		

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
8/19/2019			
8/20/2019			
8/21/2019	<0.001	0.00019 (J)	
10/7/2019		<0.001	
10/8/2019			
10/9/2019	0.00019 (J)		
4/6/2020		<0.001	
4/7/2020			
4/8/2020			
4/9/2020	<0.001		
8/18/2020			
8/19/2020		<0.001	
8/20/2020	<0.001		
9/29/2020		<0.001	
9/30/2020			
10/1/2020	<0.001		
12/1/2020			<0.001
2/9/2021			<0.001
2/10/2021	<0.001		
2/11/2021		<0.001	

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-16	ARGWC-17
12/16/1997	<0.005	<0.005							
6/30/1998	<0.005	<0.005							
12/2/1998	<0.005	<0.005							
6/8/1999	<0.005	<0.005							
12/7/1999	<0.005	<0.005							
6/15/2000	<0.005	<0.005							
12/12/2000	<0.005	<0.005							
12/5/2001	<0.005	<0.005							
6/26/2002	<0.005	<0.005							
12/3/2002	<0.005	<0.005							
6/11/2003	<0.005	<0.005							
12/10/2003	<0.005	<0.005							
6/15/2004	<0.005	<0.005							
12/14/2004	<0.005	<0.005							
6/2/2005	<0.005	<0.005							
12/14/2005	<0.005	<0.005	<0.005						
4/5/2006	<0.005	<0.005	<0.005						
10/30/2006	<0.005	<0.005	<0.005						
5/10/2007	<0.005	<0.005	<0.005						
11/17/2007	<0.005	<0.005	<0.005						
5/2/2008			<0.005						
5/3/2008	<0.005	<0.005							
10/22/2008	<0.005	<0.005	<0.005						
5/5/2009				0.0041					
5/6/2009	0.0047				0.0054				
5/7/2009		0.0049				0.0059			
5/12/2009							0.0039	0.0062	0.0059
5/13/2009									
5/14/2009			0.0046						
12/1/2009	0.0046		0.0019						
12/3/2009					0.006	0.0057			
12/4/2009		<0.005		<0.005			<0.005		<0.005
12/5/2009								<0.005	
5/25/2010	<0.005				<0.005	<0.005	<0.005		<0.005
5/26/2010			<0.005					<0.005	
6/1/2010		<0.005		<0.005					
6/2/2010									
11/9/2010	<0.005				<0.005			<0.005	<0.005
11/10/2010		<0.005	<0.005	<0.005		<0.005	<0.005		
5/18/2011									
5/19/2011							<0.005		
5/24/2011	<0.005				<0.005			<0.005	<0.005
5/25/2011		<0.005	<0.005	<0.005		<0.005			
11/9/2011				<0.005					
11/10/2011	<0.005				<0.005	<0.005			
11/11/2011			<0.005						
11/12/2011		<0.005					<0.005	<0.005	<0.005
5/17/2012			<0.005				0.0006 (J)		
5/18/2012	<0.005				<0.005				
5/30/2012						<0.005		0.0016 (J)	<0.005
5/31/2012		<0.005		<0.005					
11/9/2012	<0.005		<0.005		<0.005	<0.005		<0.005	<0.005

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-16	ARGWC-17
11/10/2012				<0.005			<0.005		
11/11/2012		<0.005							
5/7/2013							<0.005		
5/8/2013	<0.005		<0.005		<0.005				<0.005
5/9/2013						<0.005			
5/13/2013		<0.005		<0.005				<0.005	
11/5/2013			<0.005				<0.005		
11/6/2013	<0.005				<0.005			<0.005	<0.005
11/11/2013						<0.005			
11/12/2013		<0.005		<0.005					
5/20/2014	<0.005				<0.005				<0.005
5/21/2014			<0.005			<0.005		<0.005	
5/28/2014				<0.005			<0.005		
5/29/2014		<0.005							
11/17/2014	<0.005		<0.005					<0.005	<0.005
11/18/2014					<0.005	0.0083			
11/19/2014							<0.005		
11/20/2014				<0.005					
4/7/2015	<0.005		<0.005			<0.005		<0.005	<0.005
4/14/2015		<0.005		<0.005	<0.005				
4/15/2015							<0.005		
10/28/2015	<0.005		<0.005			0.023		<0.005	<0.005
10/29/2015					<0.005		<0.005		
11/3/2015		<0.005		<0.005					
11/4/2015									
6/23/2016	<0.005	<0.005	0.00029 (J)	<0.005	<0.005	0.0096			
6/24/2016							<0.005	0.0014	<0.005
8/30/2016	<0.005				<0.005				
8/31/2016		<0.005	<0.005			0.017			
9/1/2016							<0.005	0.0014	<0.005
9/2/2016				0.0005 (J)					
10/24/2016					<0.005				
10/25/2016	<0.005	<0.005	<0.005			0.0257		0.0015 (J)	<0.005
10/26/2016				<0.005			<0.005		
1/23/2017					<0.005				
1/24/2017	<0.005	<0.005				0.0097			
1/26/2017			<0.005	<0.005				0.00071 (J)	<0.005
1/27/2017							<0.005		
4/11/2017	<0.005	<0.005			<0.005	0.0079		0.0011 (J)	<0.005
4/12/2017			<0.005	<0.005			<0.005		
6/20/2017	<0.005	<0.005							
6/21/2017				<0.005	0.00025 (J)	0.019	<0.005	0.00075 (J)	<0.005
6/22/2017			<0.005						
10/25/2017	0.00027 (J)	0.00032 (J)	<0.005		0.00027 (J)	0.022	<0.005		
10/26/2017				0.0004 (J)				0.0012 (J)	<0.005
4/9/2018						0.0063			
4/10/2018	<0.005	<0.005	<0.005	0.00044 (J)	0.00033 (J)			0.0013	<0.005
4/11/2018							<0.005		
10/16/2018	<0.005	<0.005			<0.005	0.021		0.00072 (J)	
10/17/2018			<0.005	<0.005			<0.005		<0.005
3/26/2019						0.015			
3/27/2019	<0.005	<0.005		<0.005	<0.005		<0.005		

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-16	ARGWC-17
3/28/2019			<0.005					0.0017	<0.005
8/19/2019						0.034			
8/20/2019	<0.005	<0.005			<0.005			<0.005	
8/21/2019			<0.005	<0.005			<0.005		<0.005
10/7/2019									
10/8/2019	<0.005	<0.005		<0.005	<0.005	0.03			
10/9/2019			<0.005				<0.005	0.0018 (J)	<0.005
4/6/2020									
4/7/2020	<0.005	<0.005			<0.005	0.0094			
4/8/2020			<0.005	<0.005				0.0022 (J)	<0.005
4/9/2020							<0.005		
8/18/2020	<0.005	<0.005	<0.005		<0.005	0.019			<0.005
8/19/2020				<0.005				0.0029 (J)	
8/20/2020							<0.005		
9/29/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.021		0.0025 (J)	<0.005
9/30/2020							<0.005		
10/1/2020									
12/1/2020									
2/9/2021	<0.005	<0.005		<0.005	<0.005	0.019		0.0019 (J)	<0.005
2/10/2021			<0.005				<0.005		
2/11/2021									

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
12/16/1997					
6/30/1998					
12/2/1998					
6/8/1999					
12/7/1999					
6/15/2000					
12/12/2000					
12/5/2001					
6/26/2002					
12/3/2002					
6/11/2003					
12/10/2003					
6/15/2004					
12/14/2004					
6/2/2005					
12/14/2005					
4/5/2006					
10/30/2006					
5/10/2007					
11/17/2007					
5/2/2008					
5/3/2008					
10/22/2008					
5/5/2009					
5/6/2009					
5/7/2009					
5/12/2009					
5/13/2009	0.0049	0.005			
5/14/2009			0.0035		
12/1/2009					
12/3/2009	0.0045	0.0057	<0.005		
12/4/2009					
12/5/2009					
5/25/2010					
5/26/2010	<0.005	<0.005	<0.005		
6/1/2010					
6/2/2010				<0.005	
11/9/2010	<0.005	<0.005	<0.005		
11/10/2010				<0.005	
5/18/2011			<0.005		
5/19/2011	<0.005	<0.005		<0.005	
5/24/2011					
5/25/2011					
11/9/2011				<0.005	
11/10/2011					
11/11/2011	<0.005	<0.005	<0.005		
11/12/2011					
5/17/2012	<0.005	<0.005	<0.005		
5/18/2012					
5/30/2012				<0.005	
5/31/2012					
11/9/2012	<0.005	<0.005	<0.005		

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
11/10/2012					
11/11/2012				<0.005	
5/7/2013	<0.005	<0.005	<0.005		
5/8/2013					
5/9/2013				<0.005	
5/13/2013					
11/5/2013			<0.005		
11/6/2013	<0.005	<0.005			
11/11/2013				<0.005	
11/12/2013					
5/20/2014		<0.005			
5/21/2014	<0.005		<0.005		
5/28/2014					
5/29/2014				<0.005	
11/17/2014					
11/18/2014	<0.005	<0.005	<0.005		
11/19/2014				<0.005	
11/20/2014					
4/7/2015	<0.005	<0.005	<0.005		
4/14/2015				<0.005	
4/15/2015					
10/28/2015	<0.005	<0.005	<0.005		
10/29/2015					
11/3/2015					
11/4/2015				<0.005	
6/23/2016	<0.005	<0.005	<0.005	<0.005	
6/24/2016					
8/30/2016					
8/31/2016	0.00024 (J)		<0.005	0.00077 (J)	
9/1/2016		<0.005			
9/2/2016					
10/24/2016					
10/25/2016	<0.005	<0.005		<0.005	
10/26/2016			<0.005		
1/23/2017				0.00037 (J)	
1/24/2017					
1/26/2017	<0.005		<0.005		
1/27/2017		<0.005			
4/11/2017				<0.005	
4/12/2017	<0.005	<0.005	<0.005		
6/20/2017				0.00044 (J)	
6/21/2017			<0.005		
6/22/2017	<0.005	<0.005			
10/25/2017	0.00029 (J)			0.00038 (J)	
10/26/2017		<0.005	<0.005		
4/9/2018				<0.005	
4/10/2018					
4/11/2018	<0.005	<0.005	<0.005		
10/16/2018				<0.005	
10/17/2018	<0.005	<0.005	<0.005		
3/26/2019					
3/27/2019				<0.005	

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
3/28/2019	<0.005	<0.005	<0.005		
8/19/2019					
8/20/2019					
8/21/2019	<0.005	<0.005	<0.005	<0.005	
10/7/2019				<0.005	
10/8/2019					
10/9/2019	<0.005	<0.005	<0.005		
4/6/2020				<0.005	
4/7/2020					
4/8/2020		<0.005			
4/9/2020	<0.005		<0.005		
8/18/2020					
8/19/2020	<0.005	<0.005		<0.005	
8/20/2020			<0.005		
9/29/2020				<0.005	
9/30/2020					
10/1/2020	<0.005	<0.005	<0.005		
12/1/2020					<0.005
2/9/2021		<0.005			<0.005
2/10/2021	<0.005		<0.005		
2/11/2021				<0.005	

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-16	ARGWC-17
12/16/1997	<0.001	0.035 (o)							
6/30/1998	<0.001	<0.001							
12/2/1998	<0.001	<0.001							
6/8/1999	<0.001	<0.001							
12/7/1999	<0.001	<0.001							
6/15/2000	<0.001	<0.001							
12/12/2000	<0.001	0.0051							
12/5/2001	<0.001	<0.001							
6/26/2002	<0.001	<0.001							
12/3/2002	<0.001	<0.001							
6/11/2003	<0.001	<0.001							
12/10/2003	0.002 (o)	0.003							
6/15/2004	<0.001	<0.001							
12/14/2004	<0.001	<0.001							
6/2/2005	<0.001	<0.001							
12/14/2005	<0.001	<0.001	<0.001						
4/5/2006	<0.001	<0.001	<0.001						
10/30/2006	<0.001	0.002	<0.001						
5/10/2007	<0.001	0.0017	0.0011						
11/17/2007	<0.001	<0.001	<0.001						
5/2/2008			<0.001						
5/3/2008	<0.001	<0.001							
10/22/2008	<0.001	<0.001	<0.001						
5/5/2009				<0.001					
5/6/2009	<0.001				<0.001				
5/7/2009		<0.001				<0.001			
5/12/2009							<0.001	0.0011	0.0011
5/13/2009									
5/14/2009			<0.001						
12/1/2009	<0.001		<0.001						
12/3/2009					<0.001	<0.001			
12/4/2009		<0.001		0.00098			0.0008		0.0014
12/5/2009								0.0004	
5/25/2010	<0.001				<0.001	<0.001	<0.001		<0.001
5/26/2010			<0.001					<0.001	
6/1/2010		<0.001		<0.001					
6/2/2010									
11/9/2010	<0.001				<0.001			<0.001	<0.001
11/10/2010		<0.001	<0.001	<0.001		<0.001	<0.001		
5/19/2011							<0.001		
5/24/2011	<0.001				<0.001			<0.001	<0.001
5/25/2011		<0.001	<0.001	<0.001		<0.001			
5/17/2012			<0.001				<0.001		
5/18/2012	<0.001				0.0001 (J)				
5/30/2012						<0.001		<0.001	<0.001
5/31/2012		<0.001		<0.001					
11/9/2012	<0.001		<0.001		<0.001	<0.001		<0.001	<0.001
11/10/2012				<0.001			<0.001		
11/11/2012		<0.001							
5/7/2013							<0.001		
5/8/2013	<0.001		<0.001		<0.001				<0.001
5/9/2013						<0.001			

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-18	ARGWC-16	ARGWC-17
5/13/2013		<0.001		<0.001				<0.001	
11/5/2013			<0.001				<0.001		
11/6/2013	<0.001				<0.001			<0.001	<0.001
11/11/2013						<0.001			
11/12/2013		<0.001		<0.001					
5/20/2014	<0.001				<0.001				<0.001
5/21/2014			<0.001			<0.001		<0.001	
5/28/2014				<0.001			<0.001		
5/29/2014		<0.001							
11/17/2014	<0.001		<0.001					<0.001	<0.001
11/18/2014					<0.001	<0.001			
11/19/2014							<0.001		
11/20/2014				<0.001					
4/7/2015	<0.001		<0.001			<0.001		<0.001	<0.001
4/14/2015		<0.001		<0.001	<0.001				
4/15/2015							<0.001		
10/28/2015	<0.001		<0.001			<0.001		<0.001	<0.001
10/29/2015					<0.001		<0.001		
11/3/2015		<0.001		<0.001					
11/4/2015									
6/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
6/24/2016							<0.001	<0.001	<0.001
10/24/2016					<0.001				
10/25/2016	<0.001	<0.001	<0.001			<0.001		<0.001	<0.001
10/26/2016				<0.001			<0.001		
4/11/2017	<0.001	<0.001			<0.001	<0.001		<0.001	<0.001
4/12/2017			<0.001	<0.001			<0.001		
10/25/2017	<0.001	<0.001	<0.001		<0.001	0.00013 (J)	<0.001		
10/26/2017				0.00037 (J)				0.00026 (J)	<0.001
4/9/2018						<0.001			
4/10/2018	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001
4/11/2018							<0.001		
10/16/2018	<0.001	<0.001			<0.001	<0.001		<0.001	
10/17/2018			<0.001	<0.001			<0.001		<0.001
3/26/2019						<0.001			
3/27/2019	<0.001	<0.001		<0.001	<0.001		<0.001		
3/28/2019			<0.001					<0.001	<0.001
10/7/2019									
10/8/2019	0.0003 (J)	0.00019 (J)		0.00018 (J)	<0.001	0.00047 (J)			
10/9/2019			<0.001				<0.001	<0.001	<0.001
4/6/2020									
4/7/2020	<0.001	<0.001			<0.001	<0.001			
4/8/2020			<0.001	<0.001				<0.001	<0.001
4/9/2020							<0.001		
9/29/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
9/30/2020							<0.001		
10/1/2020									
12/1/2020									
2/9/2021	<0.001	<0.001		<0.001	<0.001	<0.001		<0.001	<0.001
2/10/2021			<0.001				<0.001		
2/11/2021									

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-10	ARGWC-9	ARGWA-14 (bg)	ARGWA-24 (bg)
12/16/1997				
6/30/1998				
12/2/1998				
6/8/1999				
12/7/1999				
6/15/2000				
12/12/2000				
12/5/2001				
6/26/2002				
12/3/2002				
6/11/2003				
12/10/2003				
6/15/2004				
12/14/2004				
6/2/2005				
12/14/2005				
4/5/2006				
10/30/2006				
5/10/2007				
11/17/2007				
5/2/2008				
5/3/2008				
10/22/2008				
5/5/2009				
5/6/2009				
5/7/2009				
5/12/2009				
5/13/2009	0.0009	0.0024 (o)		
5/14/2009				
12/1/2009				
12/3/2009	0.00083	0.0007		
12/4/2009				
12/5/2009				
5/25/2010				
5/26/2010	<0.001	<0.001		
6/1/2010				
6/2/2010			<0.001	
11/9/2010	<0.001	<0.001		
11/10/2010			<0.001	
5/19/2011	<0.001	<0.001	<0.001	
5/24/2011				
5/25/2011				
5/17/2012	<0.001	<0.001		
5/18/2012				
5/30/2012			<0.001	
5/31/2012				
11/9/2012	<0.001	<0.001		
11/10/2012				
11/11/2012			<0.001	
5/7/2013	<0.001	<0.001		
5/8/2013				
5/9/2013			<0.001	

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 4/6/2021 12:39 PM View: Appendix I

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-10	ARGWC-9	ARGWA-14 (bg)	ARGWA-24 (bg)
5/13/2013				
11/5/2013				
11/6/2013	<0.001	<0.001		
11/11/2013			<0.001	
11/12/2013				
5/20/2014	<0.001			
5/21/2014		<0.001		
5/28/2014				
5/29/2014			<0.001	
11/17/2014				
11/18/2014	<0.001	<0.001		
11/19/2014			<0.001	
11/20/2014				
4/7/2015	<0.001	<0.001		
4/14/2015			<0.001	
4/15/2015				
10/28/2015	<0.001	<0.001		
10/29/2015				
11/3/2015				
11/4/2015			<0.001	
6/23/2016	<0.001	<0.001	<0.001	
6/24/2016				
10/24/2016				
10/25/2016	<0.001	<0.001	<0.001	
10/26/2016				
4/11/2017			<0.001	
4/12/2017	<0.001	<0.001		
10/25/2017		<0.001	<0.001	
10/26/2017	<0.001			
4/9/2018			<0.001	
4/10/2018				
4/11/2018	<0.001	<0.001		
10/16/2018			<0.001	
10/17/2018	<0.001	<0.001		
3/26/2019				
3/27/2019			<0.001	
3/28/2019	<0.001	<0.001		
10/7/2019			0.00022 (J)	
10/8/2019				
10/9/2019	<0.001	<0.001		
4/6/2020			<0.001	
4/7/2020				
4/8/2020	<0.001			
4/9/2020		<0.001		
9/29/2020			<0.001	
9/30/2020				
10/1/2020	<0.001	<0.001		
12/1/2020				<0.001 (D)
2/9/2021	<0.001			<0.001
2/10/2021		<0.001		
2/11/2021			<0.001	

FIGURE E.

Appendix III - Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**2/10/2021**	**2.4**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**2/10/2021**	**1.3**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
pH (SU)	**ARGWC-16**	**7.02**	**5.58**	**2/11/2021**	**5.23**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-17**	**7.02**	**5.58**	**2/9/2021**	**5.17**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**

Appendix III - Interwell Prediction Limits - All Results

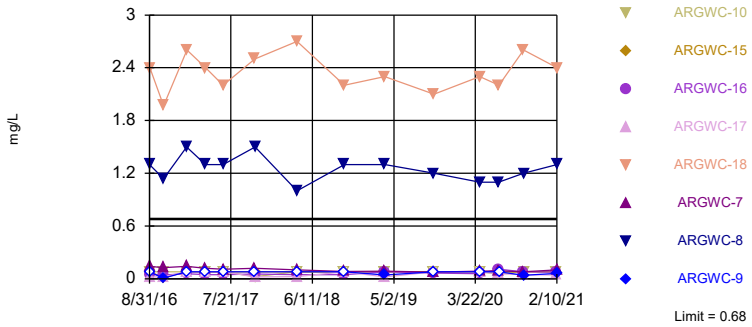
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-10	0.68	n/a	2/9/2021	0.08ND	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	ARGWC-15	0.68	n/a	2/9/2021	0.08ND	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	ARGWC-16	0.68	n/a	2/9/2021	0.076J	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	ARGWC-17	0.68	n/a	2/9/2021	0.042J	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	**ARGWC-18**	**0.68**	**n/a**	**2/10/2021**	**2.4**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	ARGWC-7	0.68	n/a	2/10/2021	0.1	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Boron (mg/L)	**ARGWC-8**	**0.68**	**n/a**	**2/10/2021**	**1.3**	**Yes**	**72**	**n/a**	**n/a**	**51.39**	**n/a**	**n/a**	**0.0003683**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	ARGWC-9	0.68	n/a	2/10/2021	0.06J	No	72	n/a	n/a	51.39	n/a	n/a	0.0003683	NP Inter (NDs) 1 of 2
Calcium (mg/L)	ARGWC-10	190	n/a	2/9/2021	7.7	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-15	190	n/a	2/9/2021	23	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-16	190	n/a	2/9/2021	38	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-17	190	n/a	2/9/2021	12	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-18	190	n/a	2/10/2021	52	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-7	190	n/a	2/10/2021	9.9	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-8	190	n/a	2/10/2021	48	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-9	190	n/a	2/10/2021	4.8	No	72	n/a	n/a	0	n/a	n/a	0.0003683	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-10	15.1	n/a	2/9/2021	4.7	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-15	15.1	n/a	2/9/2021	2.7	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-16	15.1	n/a	2/9/2021	5.7	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-17	15.1	n/a	2/9/2021	3.1	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-18	15.1	n/a	2/10/2021	7.8	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-7	15.1	n/a	2/10/2021	4.5	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-8	15.1	n/a	2/10/2021	6.4	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Chloride (mg/L)	ARGWC-9	15.1	n/a	2/10/2021	5.9	No	180	n/a	n/a	0.5556	n/a	n/a	0.00006057	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-10	0.53	n/a	2/9/2021	0.051J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-15	0.53	n/a	2/9/2021	0.094J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-16	0.53	n/a	2/9/2021	0.056J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-17	0.53	n/a	2/9/2021	0.1ND	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-18	0.53	n/a	2/10/2021	0.12	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-7	0.53	n/a	2/10/2021	0.033J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-8	0.53	n/a	2/10/2021	0.17	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
Fluoride (mg/L)	ARGWC-9	0.53	n/a	2/10/2021	0.051J	No	82	n/a	n/a	39.02	n/a	n/a	0.0002857	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-10	7.02	5.58	2/9/2021	5.94	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-15	7.02	5.58	2/9/2021	6.43	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	**ARGWC-16**	**7.02**	**5.58**	**2/11/2021**	**5.23**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**
pH (SU)	**ARGWC-17**	**7.02**	**5.58**	**2/9/2021**	**5.17**	**Yes**	**81**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005836**	**NP Inter (normality) 1 of 2**
pH (SU)	ARGWC-18	7.02	5.58	2/11/2021	6.03	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-7	7.02	5.58	2/10/2021	5.77	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-8	7.02	5.58	2/10/2021	6.45	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-9	7.02	5.58	2/11/2021	5.95	No	81	n/a	n/a	0	n/a	n/a	0.0005836	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-10	950	n/a	2/9/2021	1.3	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-15	950	n/a	2/9/2021	7.1	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-16	950	n/a	2/9/2021	190	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-17	950	n/a	2/9/2021	73	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-18	950	n/a	2/10/2021	220	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-7	950	n/a	2/10/2021	43	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-8	950	n/a	2/10/2021	60	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-9	950	n/a	2/10/2021	1.7	No	188	n/a	n/a	18.09	n/a	n/a	0.00005601	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-10	1500	n/a	2/9/2021	81	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-15	1500	n/a	2/9/2021	140	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-16	1500	n/a	2/9/2021	310	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-17	1500	n/a	2/9/2021	110	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-18	1500	n/a	2/10/2021	460	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-7	1500	n/a	2/10/2021	110	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-8	1500	n/a	2/10/2021	270	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-9	1500	n/a	2/10/2021	71	No	67	n/a	n/a	0	n/a	n/a	0.0004259	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.
Exceeds Limit: ARGWC-18, ARGWC-8

Prediction Limit

Interwell Non-parametric



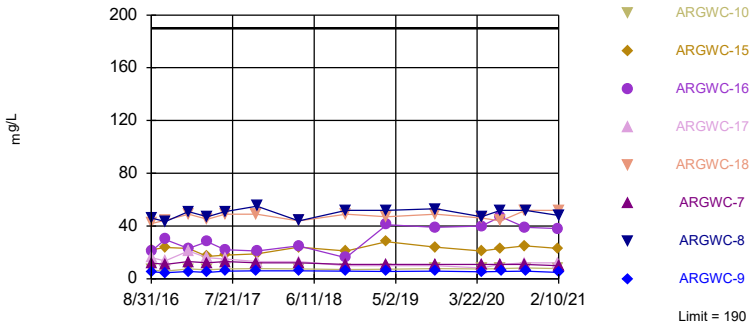
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 51.39% NDs. Annual per-constituent alpha = 0.005876. Individual comparison alpha = 0.0003683 (1 of 2). Comparing 8 points to limit.

Constituent: Boron Analysis Run 4/6/2021 3:35 PM View: Appendix III
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Within Limit

Prediction Limit

Interwell Non-parametric



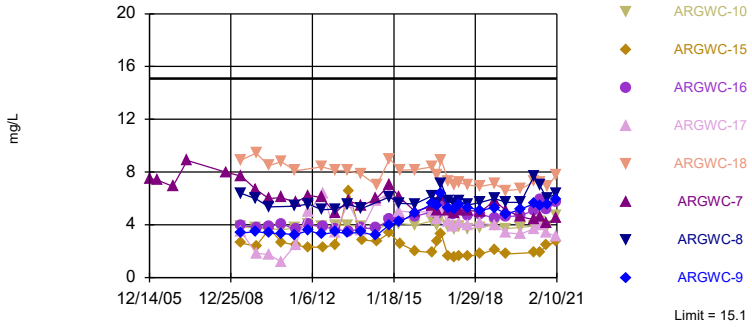
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 72 background values. Annual per-constituent alpha = 0.005876. Individual comparison alpha = 0.0003683 (1 of 2). Comparing 8 points to limit.

Constituent: Calcium Analysis Run 4/6/2021 3:35 PM View: Appendix III
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Within Limit

Prediction Limit

Interwell Non-parametric



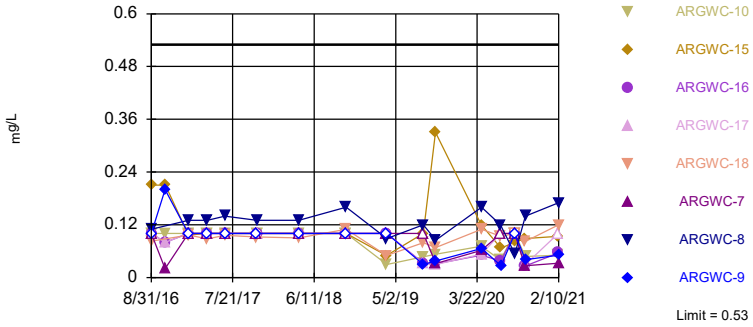
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 180 background values. 0.5556% NDs. Annual per-constituent alpha = 0.0009687. Individual comparison alpha = 0.00006057 (1 of 2). Comparing 8 points to limit.

Constituent: Chloride Analysis Run 4/6/2021 3:35 PM View: Appendix III
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 39.02% NDs. Annual per-constituent alpha = 0.004561. Individual comparison alpha = 0.0002857 (1 of 2). Comparing 8 points to limit.

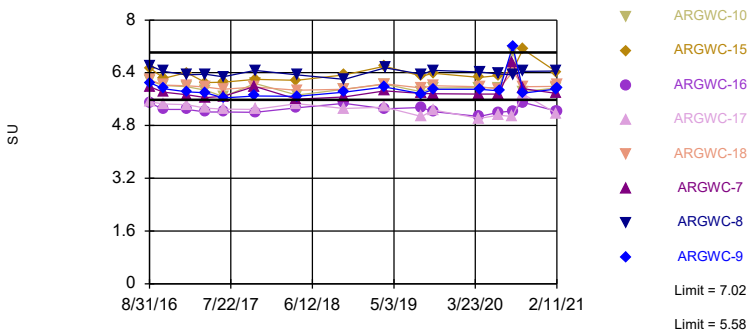
Constituent: Fluoride Analysis Run 4/6/2021 3:35 PM View: Appendix III
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Exceeds Limits: ARGWC-16, ARGWC-17

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. Limits are highest and lowest of 81 background values. Annual per-constituent alpha = 0.009317. Individual comparison alpha = 0.0005836 (1 of 2). Comparing 8 points to limit.

Constituent: pH Analysis Run 4/6/2021 3:35 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

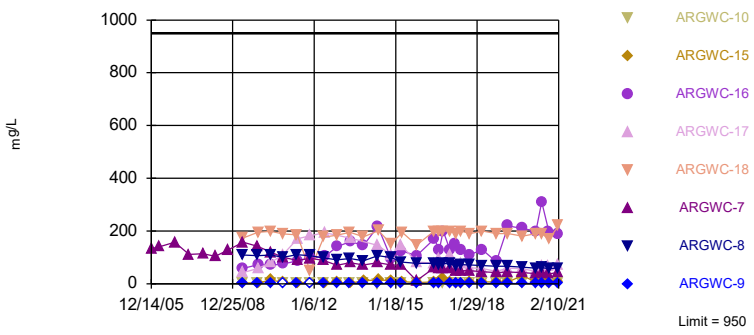
Sanitas™ v.9.6.28 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 188 background values. 18.09% NDs. Annual per-constituent alpha = 0.0008958. Individual comparison alpha = 0.00005601 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 4/6/2021 3:35 PM View: Appendix III

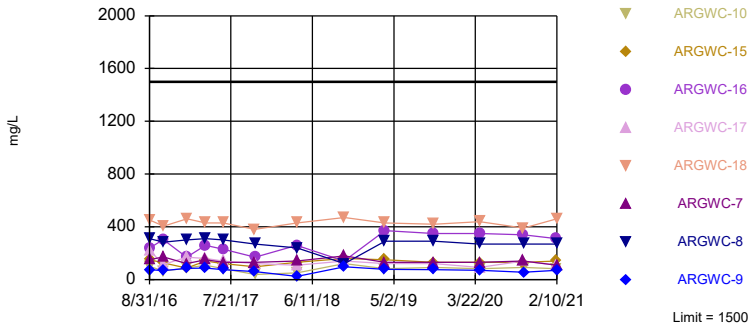
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 . UG

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 67 background values. Annual per-constituent alpha = 0.006792. Individual comparison alpha = 0.0004259 (1 of 2). Comparing 8 points to limit.

Constituent: Total Dissolved Solids Analysis Run 4/6/2021 3:35 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWC-8	ARGWC-7	ARGWA-14 (bg)	ARGWC-9	ARGWA-13 (bg)	ARGWA-3 (bg)	ARGWC-10
8/30/2016	0.032 (J)	<0.08							
8/31/2016			1.3	0.14	0.04 (J)	<0.08	0.1	<0.08	
9/1/2016									<0.08
9/2/2016									
10/24/2016	0.0406 (J)								
10/25/2016		0.0073 (J)		0.126	0.065 (J)	0.0071 (J)	0.204	0.0068 (J)	<0.08
10/26/2016			1.14						
1/23/2017	0.023 (J)				0.031 (J)				
1/24/2017		<0.08					0.064	<0.08	
1/26/2017			1.5	0.14		<0.08			
1/27/2017									<0.08
4/11/2017	0.025 (J)	<0.08			0.043 (J)		0.081	<0.08	
4/12/2017			1.3	0.12		<0.08			<0.08
6/20/2017		<0.08			0.029 (J)			<0.08	
6/21/2017	<0.08		1.3				0.13		
6/22/2017				0.11		<0.08			<0.08
10/25/2017	0.028 (J)	<0.08		0.12	0.041 (J)	<0.08	0.17	<0.08	
10/26/2017			1.5						0.026 (J)
4/9/2018					0.04 (J)		0.059		
4/10/2018	0.027 (J)	<0.08		0.1				<0.08	
4/11/2018			1			<0.08			<0.08
10/16/2018	0.023 (J)	<0.08			0.046 (J)		0.34	<0.08	
10/17/2018			1.3	0.084		<0.08			<0.08
3/26/2019							0.32		
3/27/2019	<0.08	<0.08			0.032 (J)			<0.08	
3/28/2019			1.3	0.087		0.044 (J)			<0.08
10/7/2019					<0.08				
10/8/2019	<0.08	<0.08					0.68	<0.08	
10/9/2019			1.2	0.076 (J)		<0.08			<0.08
4/6/2020					0.041 (J)				
4/7/2020	<0.08	<0.08					0.23	<0.08	
4/8/2020				0.086					<0.08
4/9/2020			1.1			<0.08			
6/23/2020			1.1						0.053 (J)
6/24/2020									
6/25/2020		<0.08		0.091	<0.08		0.32	<0.08	
6/26/2020	<0.08					<0.08			
9/29/2020	<0.08	<0.08		0.078 (J)	0.039 (J)		0.35	<0.08	
9/30/2020									
10/1/2020			1.2			0.041 (J)			0.082
12/1/2020									
2/9/2021	<0.08	<0.08					0.38	<0.08	<0.08
2/10/2021			1.3	0.1		0.06 (J)			
2/11/2021					0.062 (J)				

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-16	ARGWC-17	ARGWC-15	ARGWA-24 (bg)
8/30/2016					
8/31/2016					
9/1/2016	2.4	0.049 (J)	0.022 (J)		
9/2/2016				<0.08	
10/24/2016					
10/25/2016		0.042 (J)	0.0219 (J)		
10/26/2016	1.97			0.0138 (J)	
1/23/2017					
1/24/2017					
1/26/2017		0.059	<0.08	<0.08	
1/27/2017	2.6				
4/11/2017		0.045 (J)	<0.08		
4/12/2017	2.4			<0.08	
6/20/2017					
6/21/2017	2.2	0.045 (J)	<0.08	<0.08	
6/22/2017					
10/25/2017	2.5				
10/26/2017		0.054	0.023 (J)	<0.08	
4/9/2018					
4/10/2018		0.048 (J)	0.026 (J)	<0.08	
4/11/2018	2.7				
10/16/2018		0.048 (J)			
10/17/2018	2.2		<0.08	<0.08	
3/26/2019					
3/27/2019	2.3			<0.08	
3/28/2019		0.08	0.022 (J)		
10/7/2019					
10/8/2019				<0.08	
10/9/2019	2.1	0.065 (J)	<0.08		
4/6/2020					
4/7/2020					
4/8/2020		0.059 (J)	<0.08	<0.08	
4/9/2020	2.3				
6/23/2020					
6/24/2020	2.2	0.11	0.059 (J)		
6/25/2020				<0.08	
6/26/2020					
9/29/2020		0.081	0.045 (J)	<0.08	
9/30/2020	2.6				
10/1/2020					
12/1/2020					<0.08
2/9/2021		0.076 (J)	0.042 (J)	<0.08	<0.08
2/10/2021	2.4				
2/11/2021					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWC-8	ARGWC-7	ARGWA-14 (bg)	ARGWC-9	ARGWA-13 (bg)	ARGWA-3 (bg)	ARGWC-10
8/30/2016	11	5.1							
8/31/2016			46	12	31	5.2	110	5.4	
9/1/2016									6.6
9/2/2016									
10/24/2016	10.4								
10/25/2016		4.76		10.9	38.5	4.64	150	4.47	5.89
10/26/2016			43.3						
1/23/2017	12				25				
1/24/2017		5.6					78	5.8	
1/26/2017			51	13		5.5			
1/27/2017									7.4
4/11/2017	12	4.7			33		78	5.3	
4/12/2017			47	12		4.9			6.7
6/20/2017		5.4			34			5.8	
6/21/2017	12		51				110		
6/22/2017				13		5.8			7.5
10/25/2017	13	6		12	28	6.1	120	5.9	
10/26/2017			55						7.8
4/9/2018					30		49		
4/10/2018	13	5.3		12				5.9	
4/11/2018			44			6			7.4
10/16/2018	12	5.6			41		110	5.8	
10/17/2018			52	11		5.8			7.1
3/26/2019							95		
3/27/2019	11	4.5			42			5.4	
3/28/2019			52	11		5.6			7.3
10/7/2019					36				
10/8/2019	13	5.9					190	6	
10/9/2019			53	11		5.7			7.7
4/6/2020					43				
4/7/2020	12	4					61	5.5	
4/8/2020				11					7.5
4/9/2020			47			5.3			
6/23/2020			52						7.7
6/24/2020									
6/25/2020		6.1		11	27		100	5.7	
6/26/2020	15					5.6			
9/29/2020	14	6.6		11	29		120	5.9	
9/30/2020									
10/1/2020			52			5.7			8.1
12/1/2020									
2/9/2021	14	6.2					110	5.8	7.7
2/10/2021			48	9.9		4.8			
2/11/2021					40				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-16	ARGWC-17	ARGWC-15	ARGWA-24 (bg)
8/30/2016					
8/31/2016					
9/1/2016	42	21	16		
9/2/2016				22	
10/24/2016					
10/25/2016		29.8	13.5		
10/26/2016	44.3			23.7	
1/23/2017					
1/24/2017					
1/26/2017		23	21	23	
1/27/2017	49				
4/11/2017		28	16		
4/12/2017	45			17	
6/20/2017					
6/21/2017	49	22	15	18	
6/22/2017					
10/25/2017	49				
10/26/2017		21	13	19	
4/9/2018					
4/10/2018		25	13	24	
4/11/2018	44				
10/16/2018		16			
10/17/2018	49		10	21	
3/26/2019					
3/27/2019	47			28	
3/28/2019		41	10		
10/7/2019					
10/8/2019				24	
10/9/2019	49	39	10		
4/6/2020					
4/7/2020					
4/8/2020		40	8.3	21	
4/9/2020	46				
6/23/2020					
6/24/2020	44	47	11		
6/25/2020				23	
6/26/2020					
9/29/2020		39	12	25	
9/30/2020	52				
10/1/2020					
12/1/2020					13
2/9/2021		38	12	23	9.7
2/10/2021	52				
2/11/2021					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
12/16/1997	3.8	6.2							
6/30/1998	2.9	4.6							
12/2/1998	1.76	3.13							
6/8/1999	1.97	1.56							
12/7/1999	1.98	3.05							
6/15/2000	2.08	3.35							
12/12/2000	2.02	2.42							
12/5/2001	2.03	2.62							
6/26/2002	2.52	3.4							
12/3/2002	2.12	3.04							
6/11/2003	2.43	3.02							
12/10/2003	1.93	2.9							
6/15/2004	2.42	2.05							
12/14/2004	2.44	2.78							
6/2/2005	2.79	3.15							
12/14/2005	2.77	3.38	7.52						
4/5/2006	2.8	3.49	7.38						
10/30/2006	3.09	2.84	6.9						
5/10/2007	3.93	3.68	8.88						
11/17/2007	<0.021	2.69	13.5 (o)						
5/2/2008			12.9 (o)						
5/3/2008	3.52	2.85							
10/22/2008	3.15	2.99	7.97						
5/5/2009				2.61					
5/6/2009	3.49				10.7				
5/7/2009		2.96				4.24			
5/12/2009							3.5	3.96	8.89
5/13/2009									
5/14/2009			7.68						
12/1/2009	3.26		6.66						
12/3/2009					10.1	2.66			
12/4/2009		2.97		2.37			1.85		9.43
12/5/2009								3.81	
5/25/2010	3.62				7.11	3.29	1.74		8.49
5/26/2010			6					3.85	
6/1/2010		3.23		3.71					
6/2/2010									
11/9/2010	3.38				8.4		1.18	4.08	
11/10/2010		2.86	6.07	2.69		3.82			8.77
5/18/2011									
5/19/2011									8.11
5/24/2011	3.62				9.07		2.51	3.63	
5/25/2011		2.86	5.7	2.44		4.92			
11/9/2011				2.3					
11/10/2011	3.74				10.3	4.48			
11/11/2011			6.23						
11/12/2011		2.83					4.99	4.03	12.3 (o)
5/17/2012			6.06						8.4
5/18/2012	3.6				10.1				
5/30/2012						4.72	6.4	3.82	
5/31/2012		2.68		2.29					
11/9/2012	3.66		4.9		8.73	5.1	3.37	3.69	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
11/10/2012				2.46					8.13
11/11/2012		2.63							
5/7/2013									8.11
5/8/2013	4.16		5.85		8.06		5.67		
5/9/2013						3.85			
5/13/2013		0.364		6.55				3.5	
11/5/2013			5.44						7.82
11/6/2013	3.87				10.2		3.62	3.74	
11/11/2013						5.26			
11/12/2013		2.95		2.86					
5/20/2014	4.4				8.2		5.82		
5/21/2014			5.96			4.47		3.74	
5/28/2014				2.75					6.99
5/29/2014		2.64							
11/17/2014	4.2		7				6.4	4.4	
11/18/2014					10	6.4			
11/19/2014									9
11/20/2014				3.4					
4/7/2015	4.53		6.08			5.04	5.02	4.38	
4/14/2015		2.78		2.56	10.7				
4/15/2015									8.14
10/28/2015	4.47		5.02			6.3	4.98	4.62	
10/29/2015					10.7				8.17
11/3/2015		2.66		2.01					
11/4/2015									
6/23/2016	4.6	3.3	5.4	1.9	11	5.7			
6/24/2016							5	5	8.4
8/30/2016	4.3				11				
8/31/2016		2.7	5.1			5.7			
9/1/2016							4.4	4.8	7.8
9/2/2016				2.7					
10/24/2016					12				
10/25/2016	5	3.1	6.2			7.9	5.1	5.4	
10/26/2016				3.3					8.9
1/23/2017					11				
1/24/2017	5.1	2.5				4.4			
1/26/2017			5.1	1.6			4.2	5.2	
1/27/2017									7.3
4/11/2017	4.4	2.4			11	4.3	3.9	4.8	
4/12/2017			4.9	1.5					7
6/20/2017	5	2.5							
6/21/2017				1.6	11	5.5	4.1	5.2	7.2
6/22/2017			5.1						
10/25/2017	5.3	2.3	5.1		10	5.2			7
10/26/2017				1.6			4	4.7	
4/9/2018						3.8			
4/10/2018	5.1	2.4	5	1.8	9.9		4.1	4.8	
4/11/2018									6.9
10/16/2018	5.3	2.5			11	6		4.5	
10/17/2018			5.8	2.1			4		7.1
3/26/2019						4.6			
3/27/2019	4.3	2.5		1.8	11				6.6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWA-3 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
3/28/2019			5.1				3.4	4.6	
10/7/2019									
10/8/2019	5.7	2.6		9.4 (o)	64 (o)	6.7			
10/9/2019			4.6				3.3	4.7	6.7
4/6/2020									
4/7/2020	3.7	2.9			11	3.8			
4/8/2020			4.4	1.9			3.7	5.1	
4/9/2020									7.3
6/23/2020									
6/24/2020							4	5.9	7.2
6/25/2020	4.2	2.8	4.6	1.9		5.8			
6/26/2020					12				
9/29/2020	4.6	2.7	4.1	2.5	12	5.7	3.4	5.2	
9/30/2020									6.9
10/1/2020									
12/1/2020									
2/9/2021	5.1	3		2.7	15	6	3.1	5.7	
2/10/2021			4.5						7.8
2/11/2021									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
12/16/1997					
6/30/1998					
12/2/1998					
6/8/1999					
12/7/1999					
6/15/2000					
12/12/2000					
12/5/2001					
6/26/2002					
12/3/2002					
6/11/2003					
12/10/2003					
6/15/2004					
12/14/2004					
6/2/2005					
12/14/2005					
4/5/2006					
10/30/2006					
5/10/2007					
11/17/2007					
5/2/2008					
5/3/2008					
10/22/2008					
5/5/2009					
5/6/2009					
5/7/2009					
5/12/2009					
5/13/2009	3.37	3.85			
5/14/2009			6.38		
12/1/2009					
12/3/2009	3.49	3.73	5.96		
12/4/2009					
12/5/2009					
5/25/2010					
5/26/2010	3.35	3.7	5.37		
6/1/2010					
6/2/2010				15.1	
11/9/2010	3.34	3.6	<0.071 (o)		
11/10/2010				14.8	
5/18/2011			5.4		
5/19/2011	3.25	3.79		28.2 (o)	
5/24/2011					
5/25/2011					
11/9/2011				32.8 (o)	
11/10/2011					
11/11/2011	3.57	4.07	5.58		
11/12/2011					
5/17/2012	3.27	3.84	5.15		
5/18/2012					
5/30/2012				30.8 (o)	
5/31/2012					
11/9/2012	3.45	3.99	5.2		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
11/10/2012					
11/11/2012				24.6 (o)	
5/7/2013	3.35	3.94	5.56		
5/8/2013					
5/9/2013				27.2 (o)	
5/13/2013					
11/5/2013			5.24		
11/6/2013	3.45	3.89			
11/11/2013				12.7	
11/12/2013					
5/20/2014		3.54			
5/21/2014	3.18		7.34 (o)		
5/28/2014					
5/29/2014				20 (o)	
11/17/2014					
11/18/2014	4	4.2	6.1		
11/19/2014				19 (o)	
11/20/2014					
4/7/2015	4.22	4.09	5.62		
4/14/2015				13.6	
4/15/2015					
10/28/2015	4.87	3.98	5.58		
10/29/2015					
11/3/2015					
11/4/2015				12.4	
6/23/2016	5.6	4.3	6.2	9	
6/24/2016					
8/30/2016					
8/31/2016	5.4		5.6	5.4	
9/1/2016		4			
9/2/2016					
10/24/2016					
10/25/2016	6.4	4.6		9.3	
10/26/2016			7.1		
1/23/2017				5.1	
1/24/2017					
1/26/2017	5.3		5.8		
1/27/2017		3.9			
4/11/2017				4.1	
4/12/2017	5.2	3.7	5.6		
6/20/2017				4.1	
6/21/2017			5.8		
6/22/2017	5.5	3.9			
10/25/2017	5.3			3.8	
10/26/2017		3.7	5.5		
4/9/2018				3.9	
4/10/2018					
4/11/2018	5.1	3.8	5.7		
10/16/2018				4.3	
10/17/2018	5.3	4	6		
3/26/2019					
3/27/2019				4	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
3/28/2019	4.8	3.7	5.7		
10/7/2019				4	
10/8/2019					
10/9/2019	5.2	3.8	5.7		
4/6/2020				4.2	
4/7/2020					
4/8/2020		3.9			
4/9/2020	5.6		7.7		
6/23/2020		4.2	7		
6/24/2020					
6/25/2020				4	
6/26/2020	5.4				
9/29/2020				4.1	
9/30/2020					
10/1/2020	5.5	3.9	6		
12/1/2020					12
2/9/2021		4.7			11
2/10/2021	5.9		6.4		
2/11/2021				4.6	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWA-13 (bg)	ARGWC-9	ARGWC-7	ARGWA-3 (bg)	ARGWA-14 (bg)	ARGWC-8	ARGWC-10
8/30/2016	<0.1	<0.1							
8/31/2016			<0.1	<0.1	<0.1	<0.1	0.12 (J)	0.11 (J)	
9/1/2016									<0.1
9/2/2016									
10/24/2016	0.1 (J)								
10/25/2016		0.09 (J)	0.08 (J)	0.2 (J)	0.02 (J)	0.14 (J)	0.53		0.1 (J)
10/26/2016								0.43 (o)	
1/23/2017	<0.1						0.4		
1/24/2017		<0.1	<0.1			<0.1			
1/26/2017				<0.1	<0.1			0.13 (J)	
1/27/2017									<0.1
4/11/2017	<0.1	<0.1	<0.1			<0.1	0.31		
4/12/2017				<0.1	<0.1			0.13 (J)	<0.1
6/20/2017		<0.1				<0.1	0.27		
6/21/2017	<0.1		<0.1					0.14 (J)	
6/22/2017				<0.1	<0.1				<0.1
10/25/2017	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.29		
10/26/2017								0.13 (J)	<0.1
4/9/2018			<0.1				0.25		
4/10/2018	<0.1	<0.1			<0.1	<0.1			
4/11/2018				<0.1				0.13 (J)	<0.1
10/16/2018	0.1 (J)	<0.1	<0.1			0.1 (J)	0.33		
10/17/2018				<0.1	<0.1			0.16 (J)	<0.1
3/26/2019			<0.1						
3/27/2019	0.031 (J)	0.026 (J)				0.034 (J)	0.15 (J)		
3/28/2019				<0.1	<0.1			0.089 (J)	0.03 (J)
8/19/2019			<0.1						
8/20/2019	0.049 (J)	0.047 (J)				0.053 (J)			
8/21/2019				0.03 (J)	<0.1		0.35	0.12 (J)	0.047 (J)
10/7/2019							0.12 (J)		
10/8/2019	0.27 (J)	0.05 (J)	0.033 (J)			0.056 (J)			
10/9/2019				0.038 (J)	0.032 (J)			0.085 (J)	0.053 (J)
4/6/2020							0.28		
4/7/2020	0.082 (J)	0.072 (J)	0.086 (J)			0.098 (J)			
4/8/2020					0.062 (J)				0.071 (J)
4/9/2020				0.066 (J)				0.16	
6/23/2020								0.12	0.04 (J)
6/24/2020									
6/25/2020		0.042 (J)	0.03 (J)		<0.1	0.06 (J)	0.17		
6/26/2020	0.051 (J)			0.027 (J)					
8/18/2020	0.041 (J)	<0.1	<0.1		<0.1	<0.1			
8/19/2020				<0.1			0.12		<0.1
8/20/2020								0.054 (J)	
9/29/2020	0.06 (J)	0.051 (J)	0.032 (J)		0.027 (J)	0.065 (J)	0.13		
9/30/2020									
10/1/2020				0.041 (J)				0.14	0.048 (J)
12/1/2020									
2/9/2021	0.07 (J)	0.055 (J)	0.036 (J)			0.084 (J)			0.051 (J)
2/10/2021				0.051 (J)	0.033 (J)			0.17	
2/11/2021							0.25		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-16	ARGWC-17	ARGWC-15	ARGWA-24 (bg)
8/30/2016					
8/31/2016					
9/1/2016	0.083 (J)	<0.1	<0.1		
9/2/2016				0.21	
10/24/2016					
10/25/2016		0.08 (J)	0.08 (J)		
10/26/2016	0.32 (o)			0.21 (J)	
1/23/2017					
1/24/2017					
1/26/2017		<0.1	<0.1	0.097 (J)	
1/27/2017	0.097 (J)				
4/11/2017		<0.1	<0.1		
4/12/2017	0.088 (J)			<0.1	
6/20/2017					
6/21/2017	0.096 (J)	<0.1	<0.1	<0.1	
6/22/2017					
10/25/2017	0.092 (J)				
10/26/2017		<0.1	<0.1	<0.1	
4/9/2018					
4/10/2018		<0.1	<0.1	<0.1	
4/11/2018	0.09 (J)				
10/16/2018		<0.1			
10/17/2018	0.11 (J)		<0.1	0.1 (J)	
3/26/2019					
3/27/2019	0.05 (J)			0.05 (J)	
3/28/2019		<0.1	<0.1		
8/19/2019					
8/20/2019		0.033 (J)			
8/21/2019	0.079 (J)		0.031 (J)	0.1 (J)	
10/7/2019					
10/8/2019				0.33 (J)	
10/9/2019	0.068 (J)	0.031 (J)	0.03 (J)		
4/6/2020					
4/7/2020					
4/8/2020		0.051 (J)	0.053 (J)	0.12	
4/9/2020	0.11				
6/23/2020					
6/24/2020	0.094 (J)	0.038 (J)	<0.1		
6/25/2020				0.067 (J)	
6/26/2020					
8/18/2020			<0.1		
8/19/2020		<0.1		0.081 (J)	
8/20/2020	<0.1				
9/29/2020		0.026 (J)	0.029 (J)	0.089 (J)	
9/30/2020	0.082 (J)				
10/1/2020					
12/1/2020					<0.1
2/9/2021		0.056 (J)	<0.1	0.094 (J)	0.057 (J)
2/10/2021	0.12				
2/11/2021					

Prediction Limit

Constituent: pH (SU) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-5 (bg)	ARGWC-10	ARGWC-7	ARGWC-8	ARGWA-3 (bg)	ARGWC-9	ARGWC-17	ARGWC-16	ARGWC-18
8/30/2016	6.07								
8/31/2016		6.16	5.98	6.62	6.09	6.1			
9/1/2016							5.52	5.49	6.19
9/2/2016									
10/24/2016									
10/25/2016	5.96	6.02	5.81		5.92	5.92	5.45	5.29	
10/26/2016				6.44					6.03
1/23/2017									
1/24/2017	5.89				5.98				
1/26/2017			5.73	6.34		5.82	5.43	5.29	
1/27/2017		5.98							6.01
4/11/2017	5.78				5.82		5.33	5.21	
4/12/2017		5.87	5.65	6.36		5.79			5.97
6/20/2017	5.69				5.8				
6/21/2017				6.28			5.3	5.21	5.9
6/22/2017		5.68	5.69			5.64			
10/25/2017	6.11		5.99		5.89	5.7			5.97
10/26/2017		6.07		6.47			5.29	5.2	
4/9/2018									
4/10/2018	5.58		5.6		5.85		5.46	5.34	
4/11/2018		5.72		6.34		5.69			5.87
10/16/2018	5.86				6.03			5.47	
10/17/2018		5.9	5.67	6.2		5.81	5.32		5.9
3/26/2019									
3/27/2019	5.97				6.1				6.06
3/28/2019		6.05	5.85			5.97	5.36	5.31	
3/29/2019				6.55					
8/19/2019									
8/20/2019	5.8				5.83			5.35	
8/21/2019		5.82	5.77	6.36		5.76	5.07		5.94
10/7/2019									
10/8/2019	5.93				5.96				
10/9/2019		5.94	5.76	6.47		5.9	5.27	5.22	6.01
4/6/2020									
4/7/2020	5.86				5.9				
4/8/2020		5.95	5.75				5.02	5.07	
4/9/2020				6.42		5.9			5.98
6/23/2020		5.95		6.37					
6/24/2020							5.11	5.2	5.91
6/25/2020	5.87		5.75		5.75				
6/26/2020						5.85			
8/18/2020	6.18		6.7		6.47		5.07		
8/19/2020		7.06				7.21		5.24	
8/20/2020				6.34					6.43
9/29/2020	6		5.92		6.02		5.75	5.5	
9/30/2020									5.98
10/1/2020		5.83		6.44		5.78			
12/1/2020									
2/9/2021	5.88	5.94			5.94		5.17	5.24	
2/10/2021			5.77	6.45		5.91			5.99
2/11/2021	5.87				5.94	5.95		5.23	6.03

Prediction Limit

Constituent: pH (SU) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-15	ARGWA-12 (bg)	ARGWA-14 (bg)	ARGWA-13 (bg)	ARGWA-24 (bg)
8/30/2016		6.82 (o)			
8/31/2016			7.55 (o)	6.67 (o)	
9/1/2016					
9/2/2016	6.54				
10/24/2016		5.99			
10/25/2016	6.25		6.92	5.8	
10/26/2016	6.23				
1/23/2017		5.94	6.76		
1/24/2017				5.82	
1/26/2017	6.4				
1/27/2017					
4/11/2017		5.88	6.72	5.78	
4/12/2017	6.1				
6/20/2017			6.66		
6/21/2017	6.11	5.73		5.67	
6/22/2017					
10/25/2017		6.13	6.77	5.72	
10/26/2017	6.2				
4/9/2018			6.6	5.78	
4/10/2018	6.17	5.95			
4/11/2018					
10/16/2018		5.94	6.63	5.74	
10/17/2018	6.34				
3/26/2019				5.96	
3/27/2019	6.6	6	6.83		
3/28/2019					
3/29/2019					
8/19/2019				5.59	
8/20/2019		5.89			
8/21/2019	6.3		6.94		
10/7/2019			6.69		
10/8/2019	6.38	5.93		5.74	
10/9/2019					
4/6/2020			6.65		
4/7/2020		5.91		5.84	
4/8/2020	6.26				
4/9/2020					
6/23/2020					
6/24/2020					
6/25/2020	6.32		6.38	5.8	
6/26/2020		5.94			
8/18/2020		6.48		6.15	
8/19/2020	6.47		6.62		
8/20/2020					
9/29/2020	7.11	5.88	6.8	5.75	
9/30/2020					
10/1/2020					
12/1/2020					5.85
2/9/2021	6.43	5.92		5.79	5.69
2/10/2021					
2/11/2021			7.02		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
12/16/1997	<1	2							
6/30/1998	<1	<1							
12/2/1998	0.654	0.709							
6/8/1999	1.46	<1							
12/7/1999	0.399	0.531							
6/15/2000	0.601	0.733							
12/12/2000	0.45	0.621							
12/5/2001	0.094	0.274							
6/26/2002	4.95	0.505							
12/3/2002	0.911	0.515							
6/11/2003	1.85	0.508							
12/10/2003	0.77	0.578							
6/15/2004	1.3	1.23							
12/14/2004	1.02	1.22							
6/2/2005	0.834	0.908							
12/14/2005	<1	0.825	133						
4/5/2006	<1	1.06	140						
10/30/2006	0.865	0.996	157						
5/10/2007	1.03	1.01	111						
11/17/2007	0.818	1.72	114						
5/2/2008			104						
5/3/2008	0.941	1.2							
10/22/2008	<1	<1	129						
5/5/2009				2.89					
5/6/2009		0.807			16.6				
5/7/2009	0.46					21.4			
5/12/2009							42.6	57.9	173
5/13/2009									
5/14/2009			157						
12/1/2009		0.644	142						
12/3/2009					12.3	11.6			
12/4/2009	1.06			3.13			58.4		195
12/5/2009								72.1	
5/25/2010		0.509			6.44	12.3	79.4		199
5/26/2010			120					70.3	
6/1/2010	5.56			14.5					
6/2/2010									
11/9/2010		0.348			6.83		111	74.8	
11/10/2010	0.241		100	5.04		10.6			189
5/18/2011									
5/19/2011									186
5/24/2011		0.532			8.55		171	87.2	
5/25/2011	0.383		88.8	4.57		11.9			
11/9/2011				4.15					
11/10/2011		0.209			9.74	100			
11/11/2011			96.6						
11/12/2011	<1						182	97.9	49.9
5/17/2012			88.9						177
5/18/2012		0.471			8.72				
5/30/2012						61.3	194	103	
5/31/2012	0.426			4.05					
11/9/2012		0.589	70.1		5.9	202	842 (o)	140	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
11/10/2012				5.68					184
11/11/2012	0.455 (J)								
5/7/2013									195
5/8/2013		0.504	80.5		5.66		173		
5/9/2013						33.4			
5/13/2013	2.61			2.45				160	
11/5/2013			71.6						178
11/6/2013		<1			9.04		471 (o)	146	
11/11/2013						316			
11/12/2013	<1			11.8					
5/20/2014		0.5 (J)			7.25		145		
5/21/2014			80.4			162		217	
5/28/2014				14.6					201
5/29/2014	1.41								
11/17/2014		<1	71				110	97	
11/18/2014					10	370			
11/19/2014									150
11/20/2014				12					
4/7/2015		0.469	70.6			235	145	125	
4/14/2015	0.377			8.71	9.61				
4/15/2015									195
10/28/2015		0.28	12.2			737	82.7	106	
10/29/2015					10.2				147
11/3/2015	0.215			5.14					
11/4/2015									
6/23/2016	<1	<1	61	6.9	9.8	380			
6/24/2016							79	170	200
8/30/2016		<1			9.5				
8/31/2016	<1		57			600			
9/1/2016							94	130	200
9/2/2016				6.1					
10/24/2016					11				
10/25/2016	0.3 (J)	0.4 (J)	56			820	73	200	
10/26/2016				22					200
1/23/2017					11				
1/24/2017	<1	<1				370			
1/26/2017			57	5.1			110	130	
1/27/2017									200
4/11/2017	<1	<1			9.1	340	77	150	
4/12/2017			47	4					190
6/20/2017	<1	<1							
6/21/2017				4.6	10	540	75	130	200
6/22/2017			49						
10/25/2017	<1	<1	49		11	580			190
10/26/2017				5.4			61	110	
4/9/2018						230			
4/10/2018	<1	<1	46	6.7	9.5		58	130	
4/11/2018									200
10/16/2018	<1	<1			10	520		84	
10/17/2018			42	6.8			47		190
3/26/2019						430			
3/27/2019	0.38 (J)	0.55 (J)		7.2	9.1				190

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-3 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-15	ARGWA-12 (bg)	ARGWA-13 (bg)	ARGWC-17	ARGWC-16	ARGWC-18
3/28/2019			45				59	220	
10/7/2019									
10/8/2019	0.7 (J)	0.7 (J)		31	55	950			
10/9/2019			42				57	210	180
4/6/2020									
4/7/2020	0.67 (J)	<1			8	270			
4/8/2020			39	5.9			47	200	
4/9/2020									190
6/23/2020									
6/24/2020							67	310	190
6/25/2020	1.6	<1	42	5.6		410			
6/26/2020					9				
9/29/2020	<1	<1	38	7.7	8.3	540	66	200	
9/30/2020									170
10/1/2020									
12/1/2020									
2/9/2021	<1	<1		7.1	11	520	73	190	
2/10/2021			43						220
2/11/2021									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
12/16/1997					
6/30/1998					
12/2/1998					
6/8/1999					
12/7/1999					
6/15/2000					
12/12/2000					
12/5/2001					
6/26/2002					
12/3/2002					
6/11/2003					
12/10/2003					
6/15/2004					
12/14/2004					
6/2/2005					
12/14/2005					
4/5/2006					
10/30/2006					
5/10/2007					
11/17/2007					
5/2/2008					
5/3/2008					
10/22/2008					
5/5/2009					
5/6/2009					
5/7/2009					
5/12/2009					
5/13/2009	0.938	0.984			
5/14/2009			109		
12/1/2009					
12/3/2009	0.422	0.544	107		
12/4/2009					
12/5/2009					
5/25/2010					
5/26/2010	0.262	0.37	109		
6/1/2010					
6/2/2010				129	
11/9/2010	<1	0.299	100		
11/10/2010				140	
5/18/2011			110		
5/19/2011	0.359	0.502		269	
5/24/2011					
5/25/2011					
11/9/2011				308	
11/10/2011					
11/11/2011	<1	0.172	107		
11/12/2011					
5/17/2012	0.398	0.438	98		
5/18/2012					
5/30/2012				296	
5/31/2012					
11/9/2012	0.545	0.537	90.4		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
11/10/2012					
11/11/2012				225	
5/7/2013	0.797	0.437	96.2		
5/8/2013					
5/9/2013				268	
5/13/2013					
11/5/2013			86.9		
11/6/2013	0.86	<1			
11/11/2013				132	
11/12/2013					
5/20/2014		0			
5/21/2014	1.02		106		
5/28/2014					
5/29/2014				216	
11/17/2014					
11/18/2014	1.2	<1	99		
11/19/2014				160	
11/20/2014					
4/7/2015	1.14	0.464	82.3		
4/14/2015				105	
4/15/2015					
10/28/2015	1.02	0.293	78		
10/29/2015					
11/3/2015					
11/4/2015				74.4	
6/23/2016	1	<1	78	18	
6/24/2016					
8/30/2016					
8/31/2016	1.1		72	19	
9/1/2016		<1			
9/2/2016					
10/24/2016					
10/25/2016	4.7 (o)	0.38 (J)		42	
10/26/2016			77		
1/23/2017				12	
1/24/2017					
1/26/2017	1.1		75		
1/27/2017		<1			
4/11/2017				7.1	
4/12/2017	0.9 (J)	<1	69		
6/20/2017				8.5	
6/21/2017			73		
6/22/2017	0.99 (J)	<1			
10/25/2017	0.95 (J)			9.1	
10/26/2017		<1	72		
4/9/2018				11	
4/10/2018					
4/11/2018	0.9 (J)	<1	69		
10/16/2018				14	
10/17/2018	0.95 (J)	<1	67		
3/26/2019					
3/27/2019				15	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-9	ARGWC-10	ARGWC-8	ARGWA-14 (bg)	ARGWA-24 (bg)
3/28/2019	1	0.38 (J)	66		
10/7/2019				12	
10/8/2019					
10/9/2019	1.5	0.59 (J)	63		
4/6/2020				10	
4/7/2020					
4/8/2020		<1			
4/9/2020	1.1		59		
6/23/2020		<1	62		
6/24/2020					
6/25/2020				3.3	
6/26/2020	0.94 (J)				
9/29/2020				4.1	
9/30/2020					
10/1/2020	0.82 (J)	<1	57		
12/1/2020					7.5
2/9/2021		1.3			8.5
2/10/2021	1.7		60		
2/11/2021				10	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWA-12 (bg)	ARGWA-5 (bg)	ARGWC-7	ARGWC-8	ARGWA-3 (bg)	ARGWA-14 (bg)	ARGWC-9	ARGWA-13 (bg)	ARGWC-16
8/30/2016	100	58							
8/31/2016			150	310	80	330	74	1000	
9/1/2016									240
9/2/2016									
10/24/2016	136								
10/25/2016		34	171		65	459	67	1280	304
10/26/2016				283					
1/23/2017	16					340			
1/24/2017		120			70			590	
1/26/2017			120	300			84		170
1/27/2017									
4/11/2017	120	76			64	300		610	260
4/12/2017			150	310			88		
6/20/2017		36			52	210			
6/21/2017	140			300				880	230
6/22/2017			130				76		
10/25/2017	120	64	130		72	280	60	900	
10/26/2017				270					170
4/9/2018						280		440	
4/10/2018	130	60	140		86				260
4/11/2018				240			24		
10/16/2018	150	54			74	48		910	140
10/17/2018			180	120			96		
3/26/2019								750	
3/27/2019	110	61			69	330			
3/28/2019			130	290			77		370
10/7/2019						230			
10/8/2019	130	68			66			1500	
10/9/2019			130	290			75		350
4/6/2020						280			
4/7/2020	120	65			64			480	
4/8/2020			130						350
4/9/2020				270			70		
9/29/2020	130	61	140		62	210		880	340
9/30/2020									
10/1/2020				270			55		
12/1/2020									
2/9/2021	140	73			62			890	310
2/10/2021			110	270			71		
2/11/2021						290			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/6/2021 3:37 PM View: Appendix III

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

	ARGWC-18	ARGWC-10	ARGWC-17	ARGWC-15	ARGWA-24 (bg)
8/30/2016					
8/31/2016					
9/1/2016	450	100	220		
9/2/2016				150	
10/24/2016					
10/25/2016		65	114		
10/26/2016	404			125	
1/23/2017					
1/24/2017					
1/26/2017			170	86	
1/27/2017	460	86			
4/11/2017			160		
4/12/2017	430	110		140	
6/20/2017					
6/21/2017	430		140	120	
6/22/2017		82			
10/25/2017	380				
10/26/2017		38	120	96	
4/9/2018					
4/10/2018			110	130	
4/11/2018	430	50			
10/16/2018					
10/17/2018	470	120	140	160	
3/26/2019					
3/27/2019	430			150	
3/28/2019		82	120		
10/7/2019					
10/8/2019				130	
10/9/2019	420	92	120		
4/6/2020					
4/7/2020					
4/8/2020		82	91	130	
4/9/2020	440				
9/29/2020			140	130	
9/30/2020	390				
10/1/2020		93			
12/1/2020					120
2/9/2021		81	110 (D)	140	110
2/10/2021	460				
2/11/2021					

FIGURE F.

Trend Tests - Significant Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/7/2021, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**ARGWA-13 (bg)**	**0.06866**	**50**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-13 (bg)**	**50.16**	**227**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-14 (bg)**	**-21.58**	**-241**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-5 (bg)**	**-0.003419**	**-3.102**	**-2.58**	**Yes**	**51**	**33.33**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-16**	**10.73**	**211**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-17**	**-7.249**	**-147**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-7**	**-6.838**	**-514**	**-191**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-8**	**-4.608**	**-353**	**-139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-9**	**0.07275**	**152**	**131**	**Yes**	**28**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests - All Results

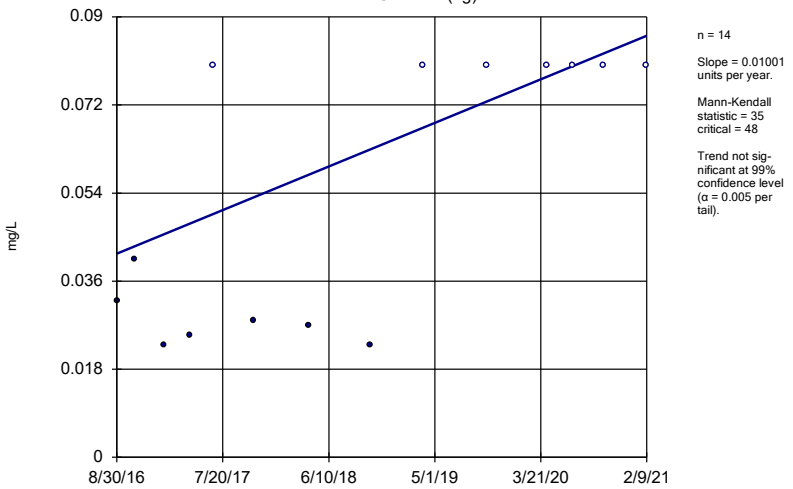
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/7/2021, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	ARGWA-12 (bg)	0.01001	35	48	No	14	50	n/a	n/a	0.01	NP
Boron (mg/L)	**ARGWA-13 (bg)**	**0.06866**	**50**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	ARGWA-14 (bg)	0.002822	18	48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-24 (bg)	0	NaN	NaN	No	2	100	n/a	n/a	NaN	NP
Boron (mg/L)	ARGWA-3 (bg)	0	11	48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWA-5 (bg)	0	11	48	No	14	92.86	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-18	0	1	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	ARGWC-8	-0.01158	-21	-48	No	14	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-12 (bg)	-0.004939	-9	-53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-13 (bg)	0.006245	12	53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-14 (bg)	-0.01263	-7	-53	No	15	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-24 (bg)	-0.8343	NaN	NaN	No	2	0	n/a	n/a	NaN	NP
pH (SU)	ARGWA-3 (bg)	0.004444	7	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	ARGWA-5 (bg)	0.005103	6	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-16	-0.01273	-14	-63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	ARGWC-17	-0.07606	-53	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	ARGWA-12 (bg)	0.1499	57	139	No	29	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWA-13 (bg)**	**50.16**	**227**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWA-14 (bg)**	**-21.58**	**-241**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	ARGWA-24 (bg)	5.214	NaN	NaN	No	2	0	n/a	n/a	NaN	NP
Sulfate (mg/L)	ARGWA-3 (bg)	-0.001395	-1.196	-2.58	No	50	34	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWA-5 (bg)**	**-0.003419**	**-3.102**	**-2.58**	**Yes**	**51**	**33.33**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	ARGWC-10	0	59	139	No	29	44.83	n/a	n/a	0.01	NP
Sulfate (mg/L)	ARGWC-15	0.249	104	139	No	29	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWC-16**	**10.73**	**211**	**139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-17**	**-7.249**	**-147**	**-124**	**Yes**	**27**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	ARGWC-18	0.1575	53	139	No	29	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**ARGWC-7**	**-6.838**	**-514**	**-191**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-8**	**-4.608**	**-353**	**-139**	**Yes**	**29**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**ARGWC-9**	**0.07275**	**152**	**131**	**Yes**	**28**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-12 (bg)



n = 14

Slope = 0.01001 units per year.

Mann-Kendall statistic = 35
critical = 48

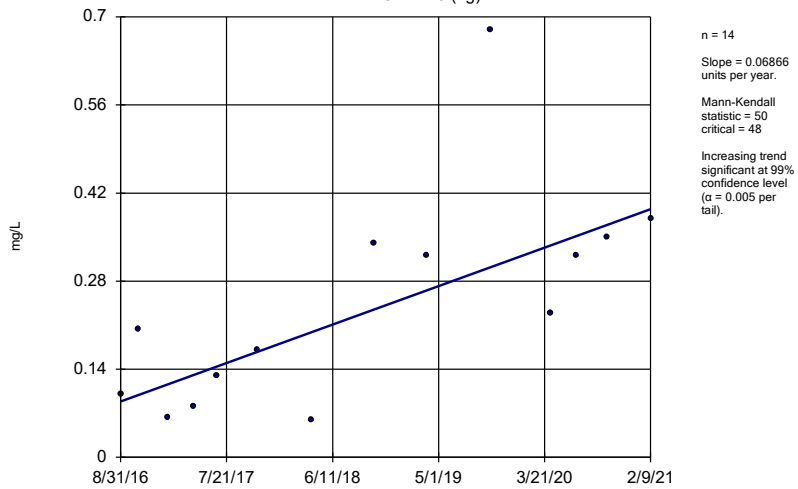
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-13 (bg)



n = 14

Slope = 0.06866 units per year.

Mann-Kendall statistic = 50
critical = 48

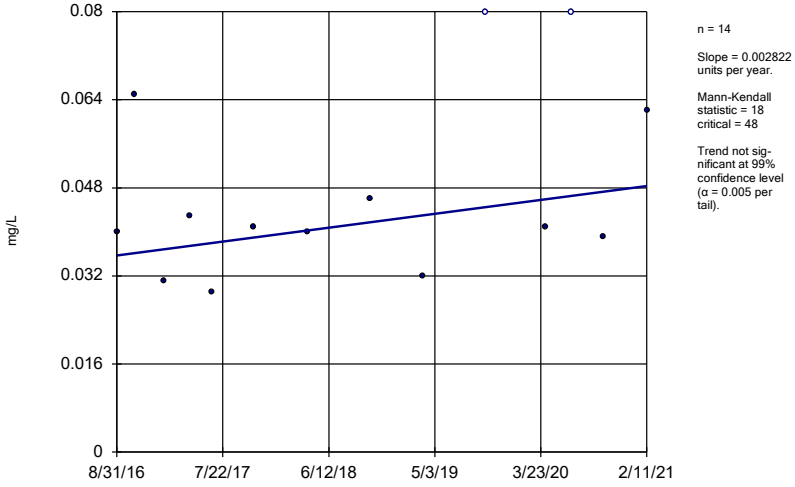
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-14 (bg)



n = 14

Slope = 0.002822 units per year.

Mann-Kendall statistic = 18
critical = 48

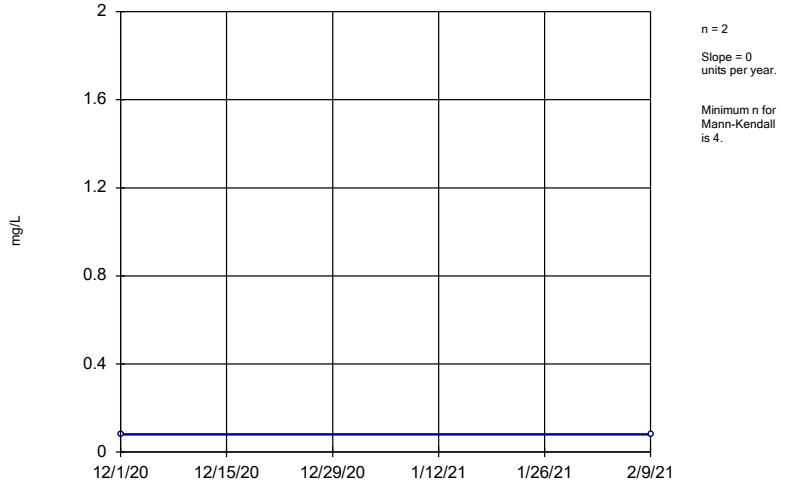
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-24 (bg)



n = 2

Slope = 0 units per year.

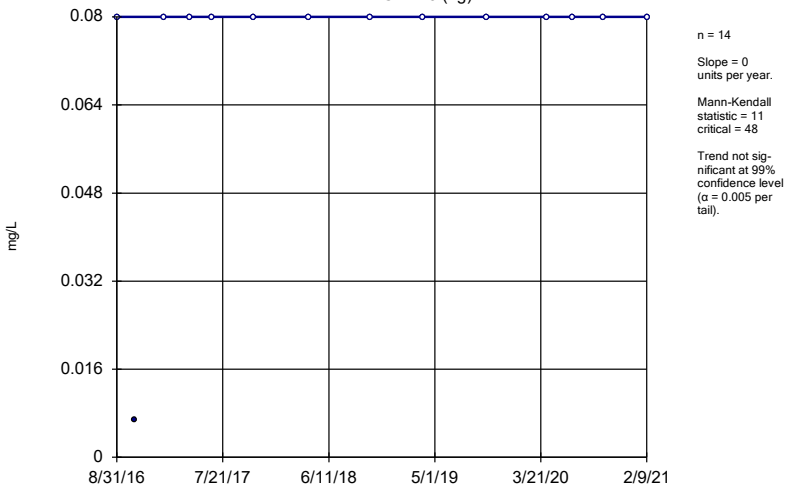
Minimum n for Mann-Kendall is 4.

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-3 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 11
critical = 48

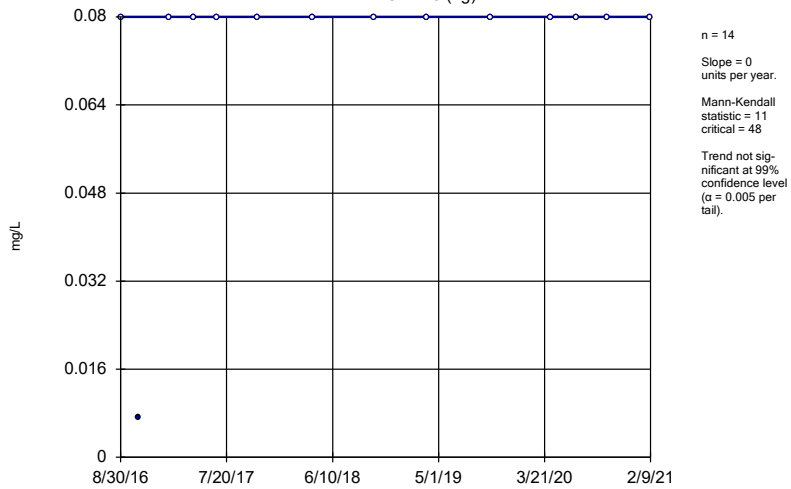
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-5 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 11
critical = 48

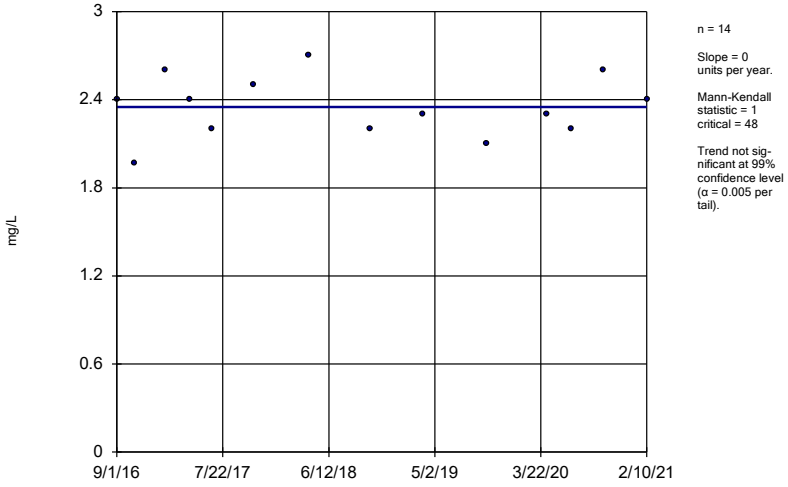
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-18



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 48

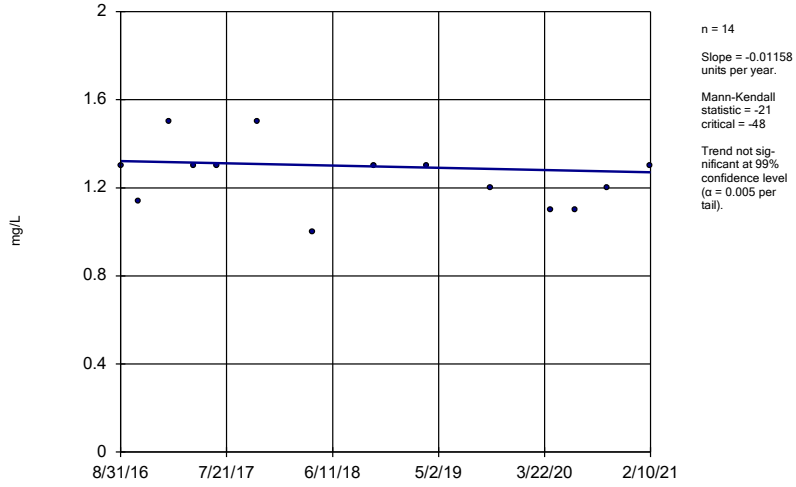
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-8



n = 14

Slope = -0.01158 units per year.

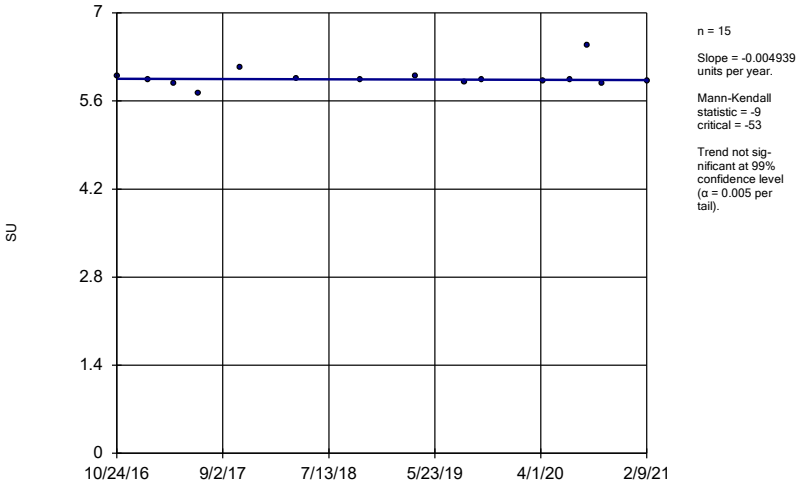
Mann-Kendall statistic = -21
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sen's Slope Estimator

ARGWA-12 (bg)



n = 15

Slope = -0.004939 units per year.

Mann-Kendall statistic = -9
critical = -53

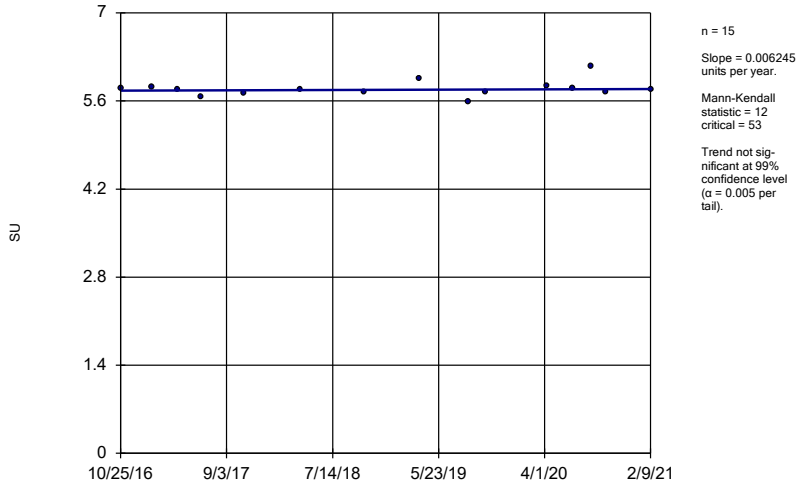
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-13 (bg)



n = 15

Slope = 0.006245 units per year.

Mann-Kendall statistic = 12
critical = 53

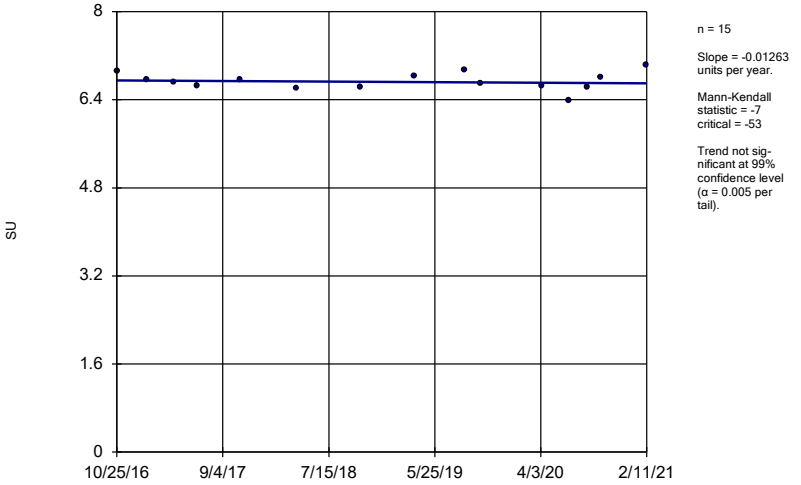
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-14 (bg)



n = 15

Slope = -0.01263 units per year.

Mann-Kendall statistic = -7
critical = -53

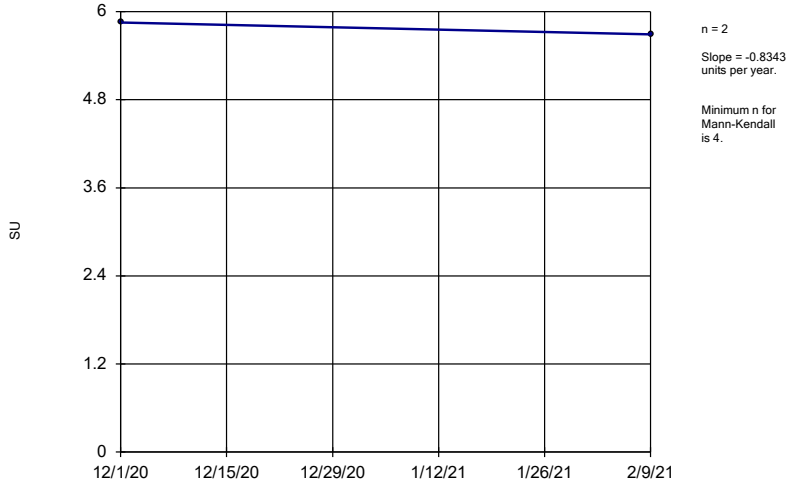
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-24 (bg)



n = 2

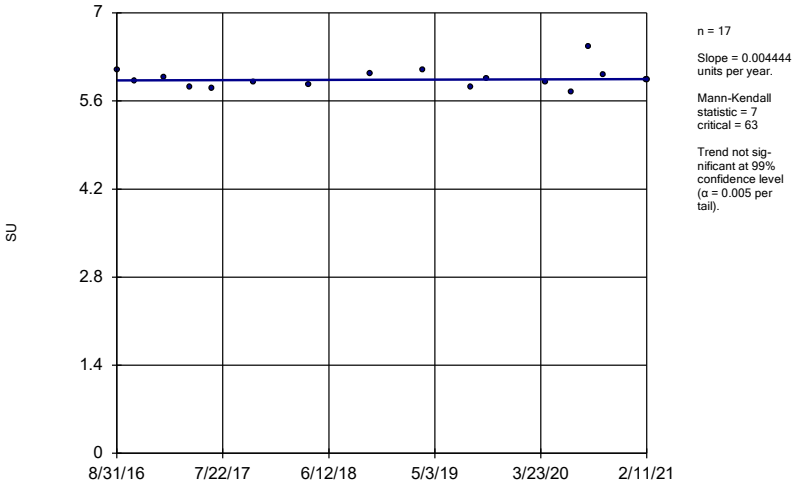
Slope = -0.8343 units per year.

Minimum n for Mann-Kendall is 4.

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sen's Slope Estimator

ARGWA-3 (bg)



n = 17

Slope = 0.004444 units per year.

Mann-Kendall statistic = 7
critical = 63

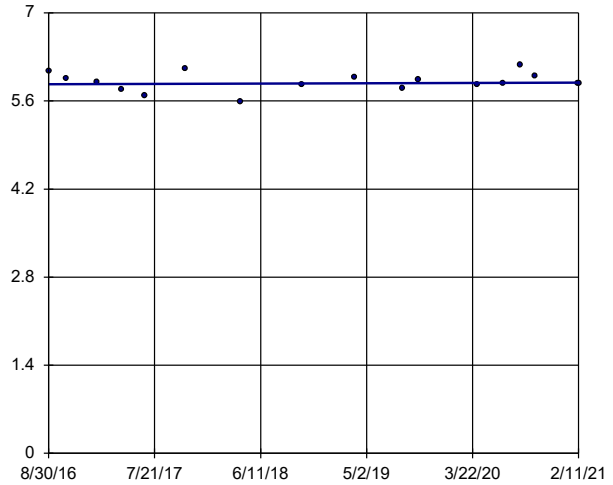
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-5 (bg)



n = 17

Slope = 0.005103 units per year.

Mann-Kendall statistic = 6
critical = 63

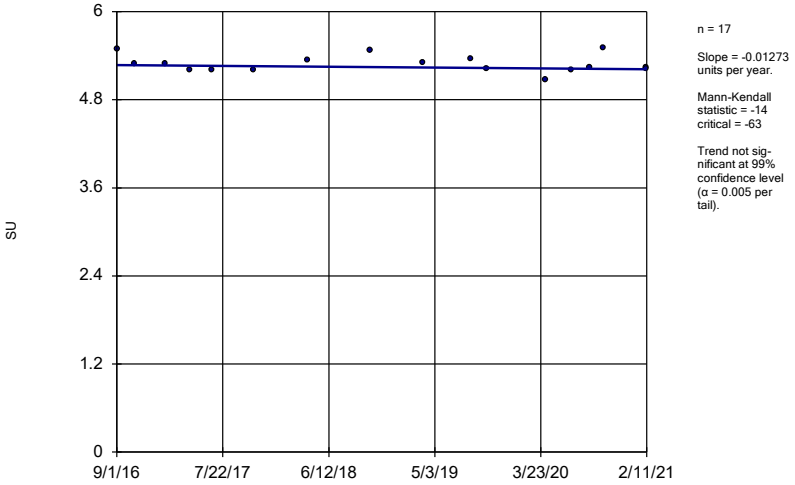
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-16



n = 17

Slope = -0.01273 units per year.

Mann-Kendall statistic = -14
critical = -63

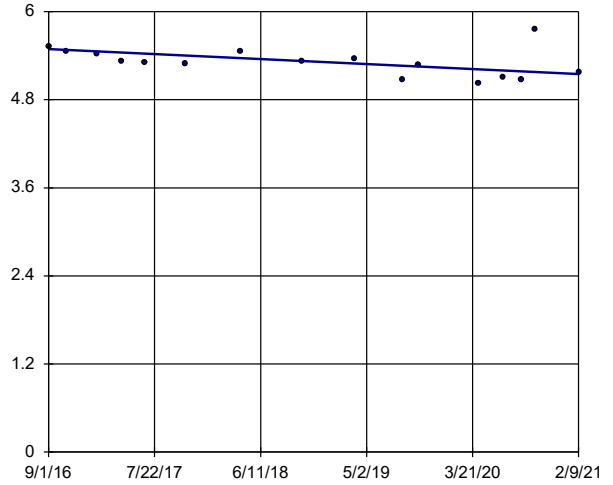
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-17



n = 16

Slope = -0.07606 units per year.

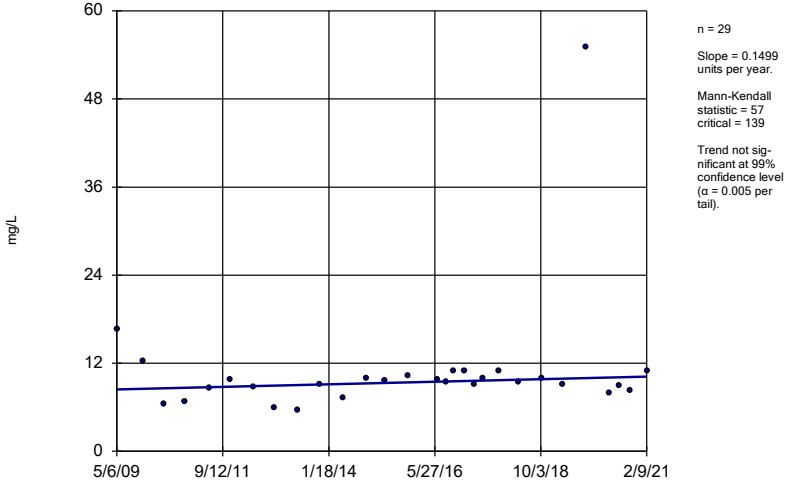
Mann-Kendall statistic = -53
critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sen's Slope Estimator

ARGWA-12 (bg)



n = 29

Slope = 0.1499 units per year.

Mann-Kendall statistic = 57 critical = 139

Trend not significant at 99% confidence level (α = 0.005 per tail).

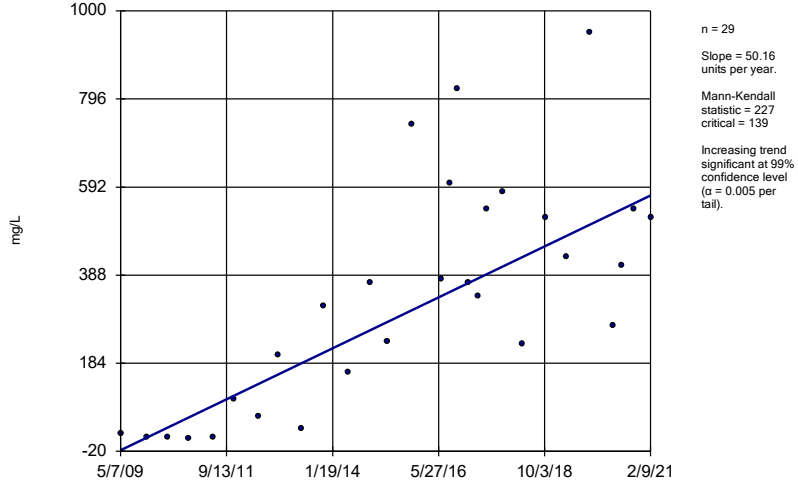
Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-13 (bg)



n = 29

Slope = 50.16 units per year.

Mann-Kendall statistic = 227 critical = 139

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

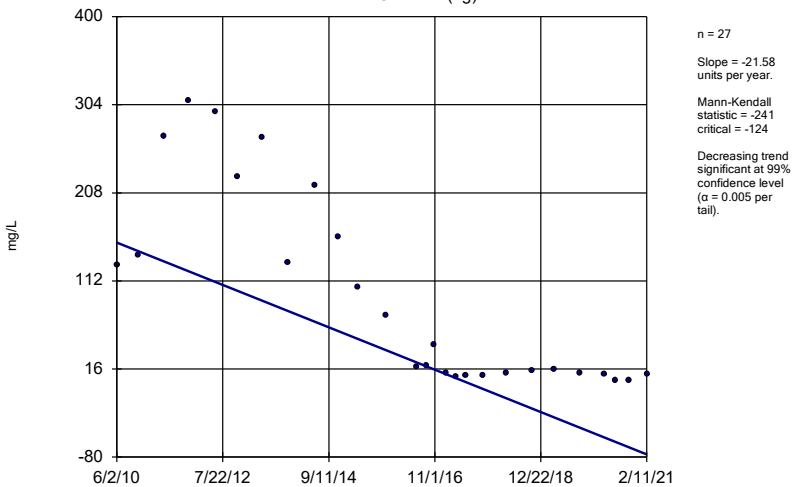
Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-14 (bg)



n = 27

Slope = -21.58 units per year.

Mann-Kendall statistic = -241 critical = -124

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

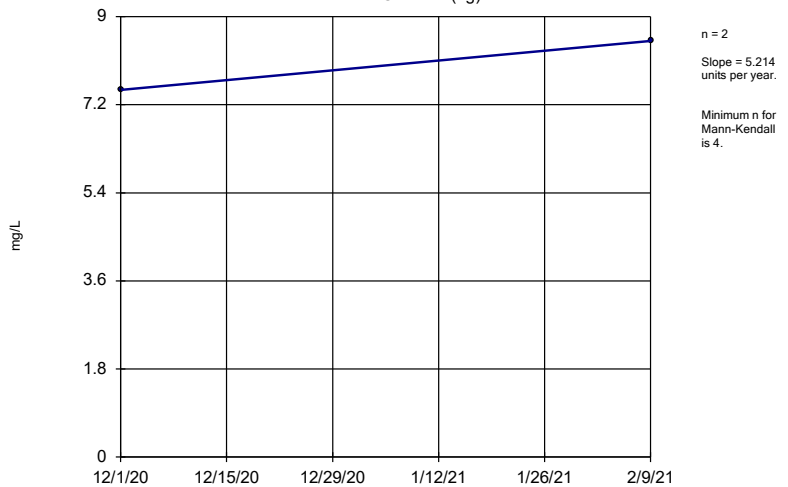
Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWA-24 (bg)



n = 2

Slope = 5.214 units per year.

Minimum n for Mann-Kendall is 4.

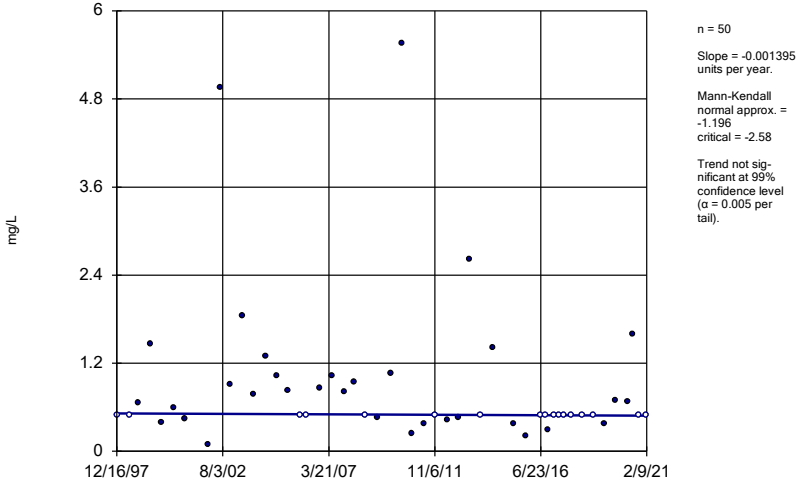
Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-3 (bg)



n = 50

Slope = -0.001395 units per year.

Mann-Kendall normal approx. = -1.196
critical = -2.58

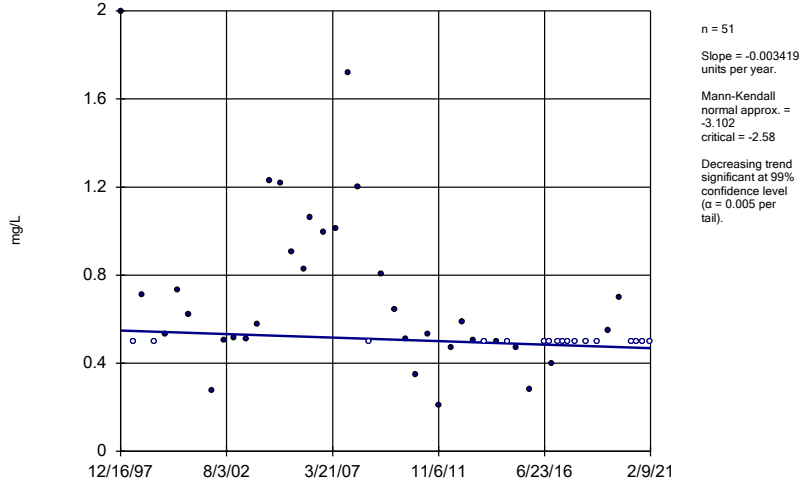
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWA-5 (bg)



n = 51

Slope = -0.003419 units per year.

Mann-Kendall normal approx. = -3.102
critical = -2.58

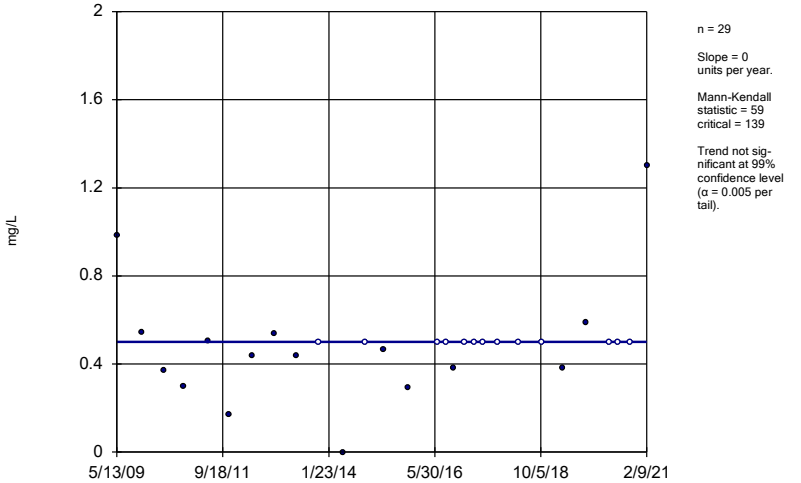
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWC-10



n = 29

Slope = 0 units per year.

Mann-Kendall statistic = 59
critical = 139

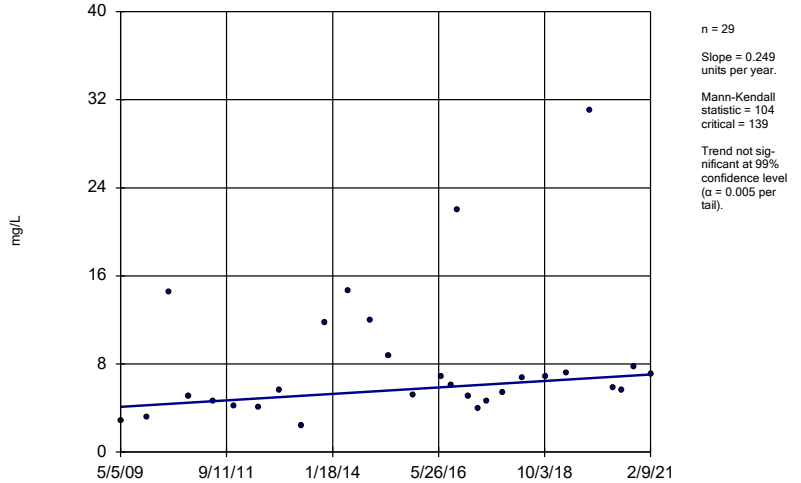
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-15



n = 29

Slope = 0.249 units per year.

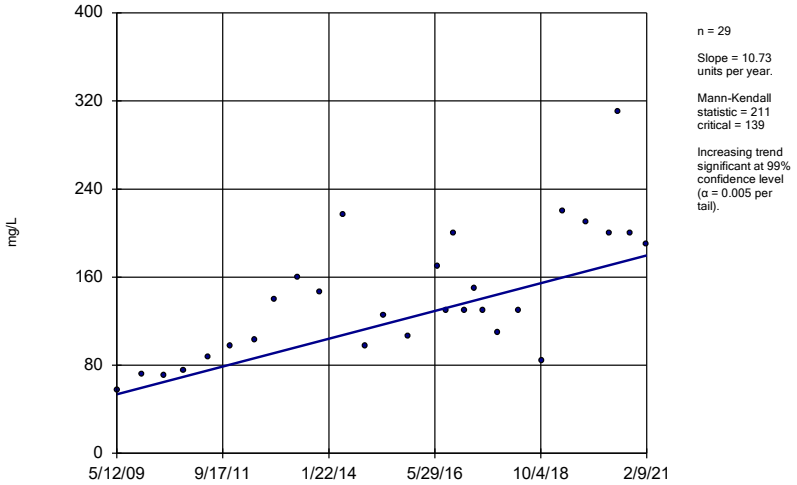
Mann-Kendall statistic = 104
critical = 139

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/7/2021 12:06 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sen's Slope Estimator

ARGWC-16



n = 29

Slope = 10.73 units per year.

Mann-Kendall statistic = 211 critical = 139

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

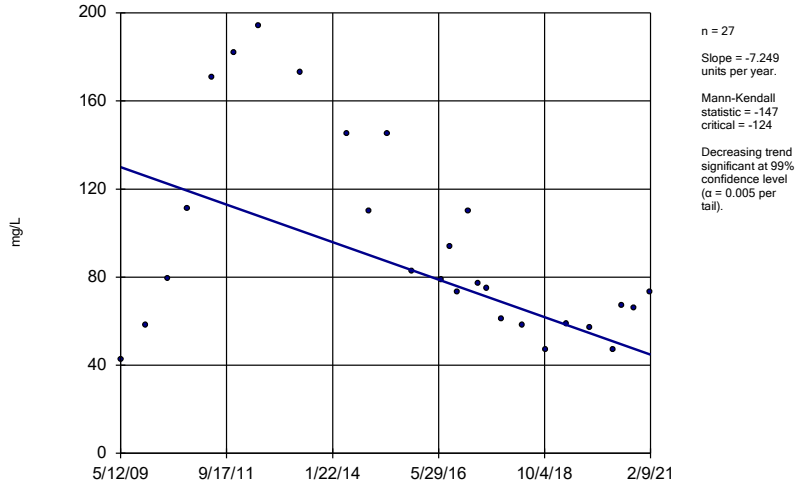
Constituent: Sulfate Analysis Run 4/7/2021 12:07 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-17



n = 27

Slope = -7.249 units per year.

Mann-Kendall statistic = -147 critical = -124

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

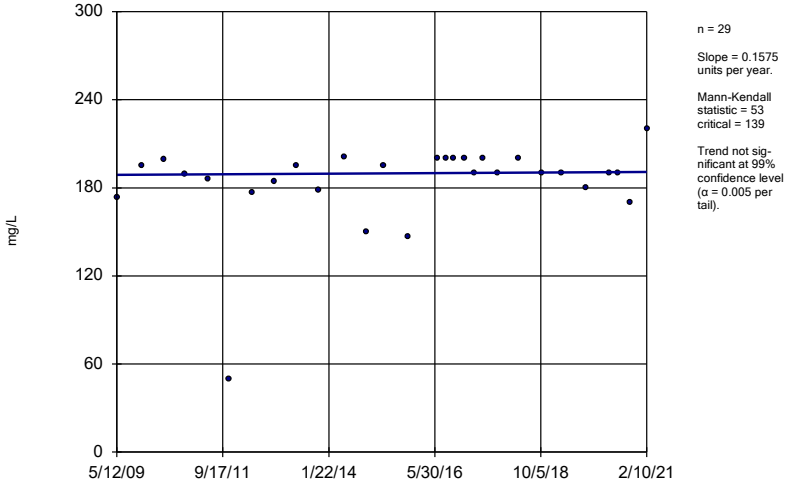
Constituent: Sulfate Analysis Run 4/7/2021 12:07 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-18



n = 29

Slope = 0.1575 units per year.

Mann-Kendall statistic = 53 critical = 139

Trend not significant at 99% confidence level (α = 0.005 per tail).

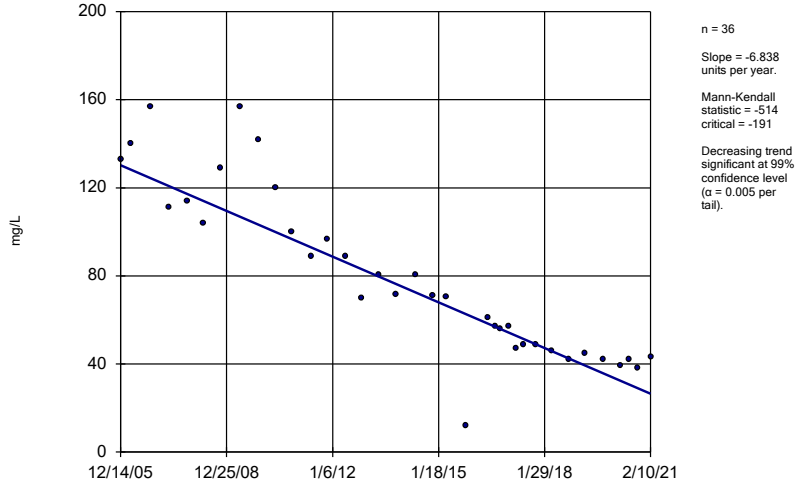
Constituent: Sulfate Analysis Run 4/7/2021 12:07 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Sen's Slope Estimator

ARGWC-7



n = 36

Slope = -6.838 units per year.

Mann-Kendall statistic = -514 critical = -191

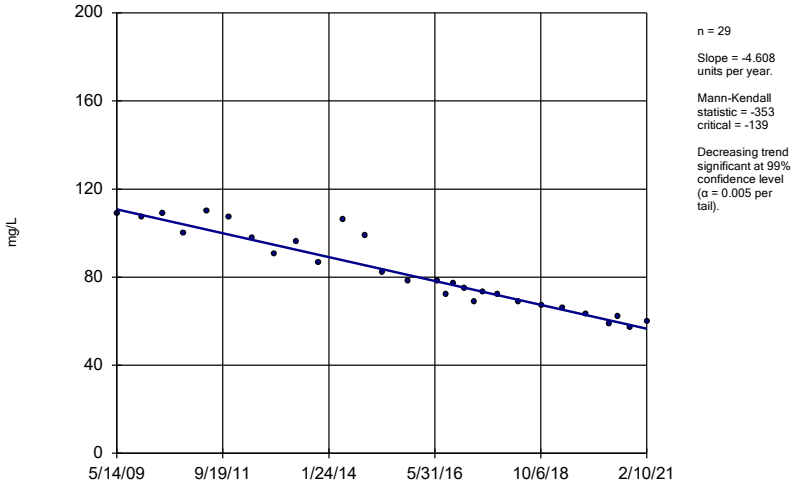
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/7/2021 12:07 PM View: Appendix III - Trend Tests

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Sen's Slope Estimator

ARGWC-8



n = 29

Slope = -4.608 units per year.

Mann-Kendall statistic = -353
critical = -139

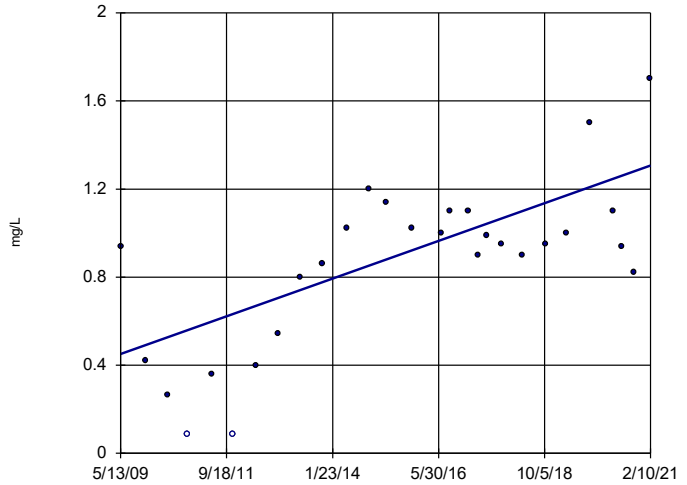
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/7/2021 12:07 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

Hollow symbols indicate censored values.

Sen's Slope Estimator

ARGWC-9



n = 28

Slope = 0.07275 units per year.

Mann-Kendall statistic = 152
critical = 131

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 4/7/2021 12:07 PM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

FIGURE G.

Tolerance Limits Summary

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 7/17/2021, 10:32 AM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.002	62	n/a	n/a	96.77	n/a	n/a	0.04158	NP Inter(NDs)
Arsenic (mg/L)	0.005	193	n/a	n/a	80.31	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.24	190	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.0025	72	n/a	n/a	95.83	n/a	n/a	0.02489	NP Inter(NDs)
Cadmium (mg/L)	0.0043	185	n/a	n/a	94.05	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter(normality)
Cobalt (mg/L)	0.0058	77	n/a	n/a	81.82	n/a	n/a	0.01926	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.084	72	0.4077	0.3416	0	None	No	0.05	Inter
Fluoride (mg/L)	0.53	82	n/a	n/a	39.02	n/a	n/a	0.01491	NP Inter(normality)
Lead (mg/L)	0.013	191	n/a	n/a	88.48	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.0099	76	n/a	n/a	46.05	n/a	n/a	0.02028	NP Inter(normality)
Mercury (mg/L)	0.0002	57	n/a	n/a	94.74	n/a	n/a	0.05373	NP Inter(NDs)
Molybdenum (mg/L)	0.015	77	n/a	n/a	90.91	n/a	n/a	0.01926	NP Inter(NDs)
Selenium (mg/L)	0.034	193	n/a	n/a	82.38	n/a	n/a	NaN	NP Inter(NDs)
Silver (mg/L)	0.0051	161	n/a	n/a	93.79	n/a	n/a	0.0002591	NP Inter(NDs)
Thallium (mg/L)	0.001	72	n/a	n/a	90.28	n/a	n/a	0.02489	NP Inter(NDs)

FIGURE H.

PLANT ARKWRIGHT LF #3 GWPS			
Constituent Name	**MCL**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006	0.002	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.24	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0043	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)	n/a	0.0058	0.0058
Combined Radium, Total (pCi/L)	5	1.08	5
Fluoride, Total (mg/L)	4	0.53	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.0099	0.0099
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.015	0.015
Selenium, Total (mg/L)	0.05	0.034	0.05
Silver, Total (mg/L)	n/a	0.0051	0.0051
Thallium, Total (mg/L)	0.002	0.001	0.002

**MCL = Maximum Contaminant Level*

**GWPS = Groundwater Protection Standard*

FIGURE I.

Confidence Interval Summary Table - Significant Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**ARGWC-17**	**0.02692**	**0.01833**	**0.0058**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**ARAMW-4**	**0.01492**	**0.01058**	**0.0099**	**Yes**	**4**	**0**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	**ARGWC-8**	**0.04368**	**0.03721**	**0.015**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - All Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	ARGWC-10	0.0011	0.0004	0.01	No	16	81.25	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-15	0.001	0.00062	0.01	No	16	87.5	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-16	0.001	0.001	0.01	No	16	81.25	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-17	0.0015	0.00087	0.01	No	16	75	No	0.01	NP (normality)
Arsenic (mg/L)	ARGWC-18	0.0016	0.00066	0.01	No	16	81.25	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-7	0.0015	0.00078	0.01	No	16	87.5	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-8	0.0014	0.00072	0.01	No	16	75	No	0.01	NP (normality)
Arsenic (mg/L)	ARGWC-9	0.0011	0.00051	0.01	No	16	87.5	No	0.01	NP (NDs)
Barium (mg/L)	ARGWC-10	0.03329	0.03016	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-15	0.038	0.028	2	No	16	0	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-16	0.0549	0.04581	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-17	0.05102	0.04343	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-18	0.0393	0.03506	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-7	0.04076	0.03483	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-8	0.04916	0.04312	2	No	16	0	No	0.01	Param.
Barium (mg/L)	ARGWC-9	0.04838	0.04306	2	No	16	0	No	0.01	Param.
Beryllium (mg/L)	ARGWC-10	0.0025	0.0025	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-15	0.0025	0.0025	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-16	0.0025	0.00027	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-17	0.0025	0.00025	0.004	No	14	50	No	0.01	NP (normality)
Beryllium (mg/L)	ARGWC-18	0.0025	0.00034	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-7	0.0025	0.00041	0.004	No	14	85.71	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-8	0.0025	0.00047	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-9	0.0025	0.00037	0.004	No	14	92.86	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-10	0.005477	0.004356	0.1	No	14	0	x^(1/3)	0.01	Param.
Chromium (mg/L)	ARGWC-15	0.0087	0.0017	0.1	No	14	85.71	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-16	0.002212	0.001645	0.1	No	14	0	No	0.01	Param.
Chromium (mg/L)	ARGWC-17	0.0021	0.0016	0.1	No	14	78.57	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-18	0.002	0.002	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-7	0.003784	0.003016	0.1	No	14	0	No	0.01	Param.
Chromium (mg/L)	ARGWC-8	0.002	0.0017	0.1	No	14	85.71	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-9	0.01034	0.00823	0.1	No	14	0	No	0.01	Param.
Cobalt (mg/L)	ARAMW-3	0.0011	0.00053	0.0058	No	4	0	No	0.0625	NP (normality)
Cobalt (mg/L)	ARAMW-4	0.006388	0.003179	0.0058	No	6	16.67	No	0.01	Param.
Cobalt (mg/L)	ARAMW-6	0.006509	-0.002024	0.0058	No	4	0	No	0.01	Param.
Cobalt (mg/L)	ARGWC-10	0.0025	0.00017	0.0058	No	15	73.33	No	0.01	NP (normality)
Cobalt (mg/L)	ARGWC-15	0.001733	0.0002289	0.0058	No	15	33.33	ln(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-16	0.0025	0.00026	0.0058	No	15	80	No	0.01	NP (NDs)
Cobalt (mg/L)	**ARGWC-17**	**0.02692**	**0.01833**	**0.0058**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	ARGWC-18	0.001538	0.001129	0.0058	No	15	0	No	0.01	Param.
Cobalt (mg/L)	ARGWC-7	0.0025	0.00034	0.0058	No	15	86.67	No	0.01	NP (NDs)
Cobalt (mg/L)	ARGWC-8	0.0025	0.00017	0.0058	No	15	53.33	No	0.01	NP (normality)
Cobalt (mg/L)	ARGWC-9	0.0025	0.00021	0.0058	No	15	80	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	ARGWC-10	0.3028	-0.009268	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-15	0.669	0.309	5	No	14	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-16	0.568	0.0598	5	No	14	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	ARGWC-17	0.6905	0.1331	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-18	0.5647	0.216	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-7	0.4633	0.2104	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-8	0.4065	0.1536	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-9	0.4269	0.1244	5	No	14	0	No	0.01	Param.
Fluoride (mg/L)	ARAMW-3	0.2089	0.003359	4	No	4	25	No	0.01	Param.
Fluoride (mg/L)	ARAMW-4	0.04722	0.02042	4	No	4	25	x^(1/3)	0.01	Param.
Fluoride (mg/L)	ARAMW-6	0.1055	0.03801	4	No	4	0	No	0.01	Param.
Fluoride (mg/L)	ARGWC-10	0.1	0.047	4	No	16	50	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-15	0.12	0.081	4	No	16	25	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-16	0.1	0.033	4	No	16	56.25	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-17	0.1	0.031	4	No	16	68.75	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-18	0.1024	0.07883	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	ARGWC-7	0.1	0.032	4	No	16	68.75	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-8	0.1454	0.1037	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	ARGWC-9	0.2	0.038	4	No	16	56.25	No	0.01	NP (normality)
Lead (mg/L)	ARGWC-10	0.031	0.00013	0.013	No	16	87.5	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-15	0.0016	0.0003	0.013	No	16	81.25	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-16	0.001	0.001	0.013	No	16	100	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-17	0.001	0.001	0.013	No	16	100	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-18	0.001	0.00028	0.013	No	16	81.25	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-7	0.001	0.001	0.013	No	16	100	No	0.01	NP (NDs)

Confidence Interval Summary Table - All Results

Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix Printed 4/6/2021, 3:40 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lead (mg/L)	ARGWC-8	0.001	0.00019	0.013	No	16	93.75	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-9	0.001	0.00016	0.013	No	16	93.75	No	0.01	NP (NDs)
Lithium (mg/L)	ARAMW-3	0.00571	0.00394	0.0099	No	4	25	No	0.01	Param.
Lithium (mg/L)	**ARAMW-4**	**0.01492**	**0.01058**	**0.0099**	**Yes**	**4**	**0**	**No**	**0.01**	**Param.**
Lithium (mg/L)	ARAMW-6	0.005	0.005	0.0099	No	4	100	No	0.0625	NP (NDs)
Lithium (mg/L)	ARGWC-10	0.0055	0.0015	0.0099	No	15	80	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-15	0.005	0.004	0.0099	No	15	66.67	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-16	0.0076	0.0031	0.0099	No	15	80	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-17	0.0071	0.0023	0.0099	No	15	80	No	0.01	NP (NDs)
Lithium (mg/L)	ARGWC-18	0.005	0.0037	0.0099	No	15	13.33	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-7	0.005	0.0033	0.0099	No	15	46.67	No	0.01	NP (normality)
Lithium (mg/L)	ARGWC-8	0.004444	0.002936	0.0099	No	15	40	sqrt(x)	0.01	Param.
Lithium (mg/L)	ARGWC-9	0.0061	0.005	0.0099	No	15	93.33	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-3	0.009181	-0.0001212	0.015	No	5	0	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-4	0.015	0.00073	0.015	No	4	50	No	0.0625	NP (normality)
Molybdenum (mg/L)	ARAMW-6	0.015	0.00065	0.015	No	5	80	No	0.031	NP (NDs)
Molybdenum (mg/L)	ARGWC-10	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-15	0.015	0.00097	0.015	No	15	40	No	0.01	NP (normality)
Molybdenum (mg/L)	ARGWC-16	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-17	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-18	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARGWC-7	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	**ARGWC-8**	**0.04368**	**0.03721**	**0.015**	**Yes**	**15**	**0**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	ARGWC-9	0.015	0.015	0.015	No	15	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-10	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-15	0.005	0.0005	0.05	No	16	81.25	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-16	0.002284	0.001094	0.05	No	16	6.25	sqrt(x)	0.01	Param.
Selenium (mg/L)	ARGWC-17	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-18	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-7	0.005	0.00029	0.05	No	16	93.75	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-8	0.005	0.005	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	ARGWC-9	0.005	0.00029	0.05	No	16	87.5	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-10	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-15	0.001	0.00037	0.0051	No	11	81.82	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-16	0.001	0.001	0.0051	No	11	90.91	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-17	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-18	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-7	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-8	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Silver (mg/L)	ARGWC-9	0.001	0.001	0.0051	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	ARGWC-10	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-15	0.001	0.000095	0.002	No	14	92.86	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-16	0.001	0.00027	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-17	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-18	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-7	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-8	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-9	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)

Sanitas™ v.9.6.28 . UG

Non-Parametric Confidence Interval

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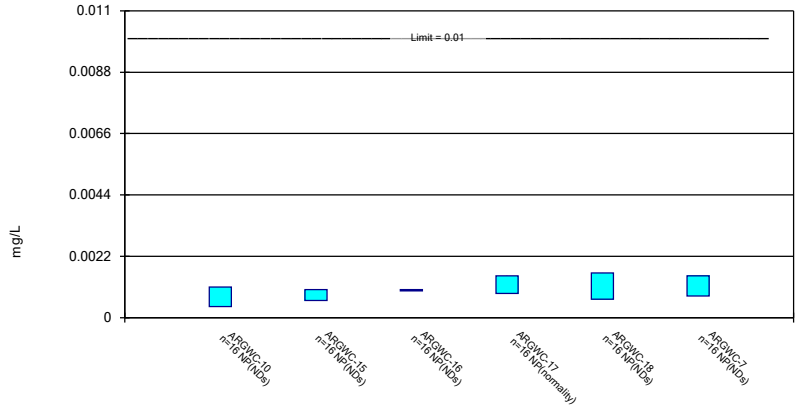

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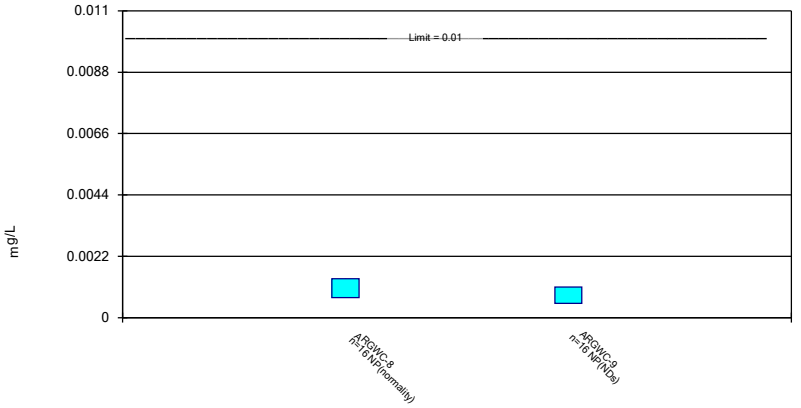

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Parametric and Non-Parametric (NP) Confidence Interval

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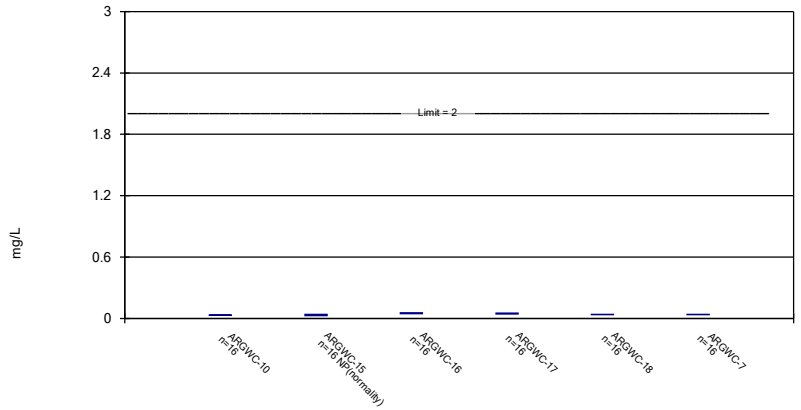

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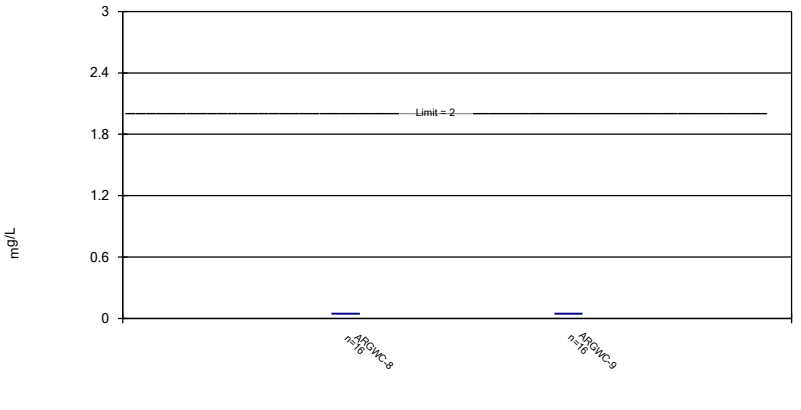

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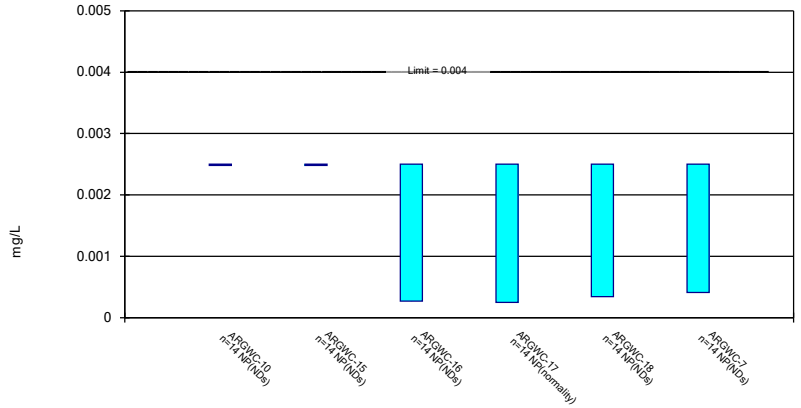

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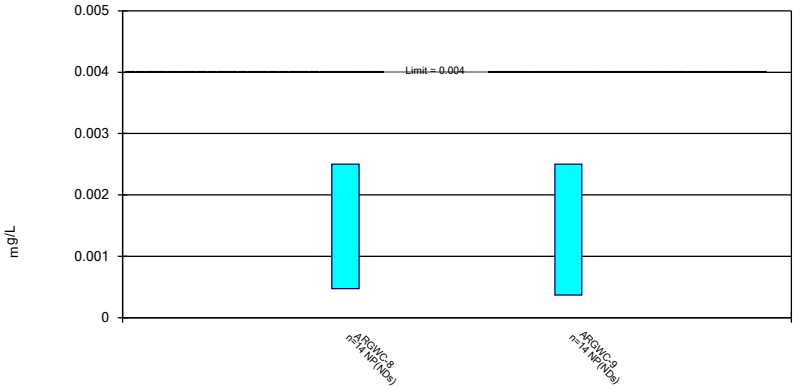

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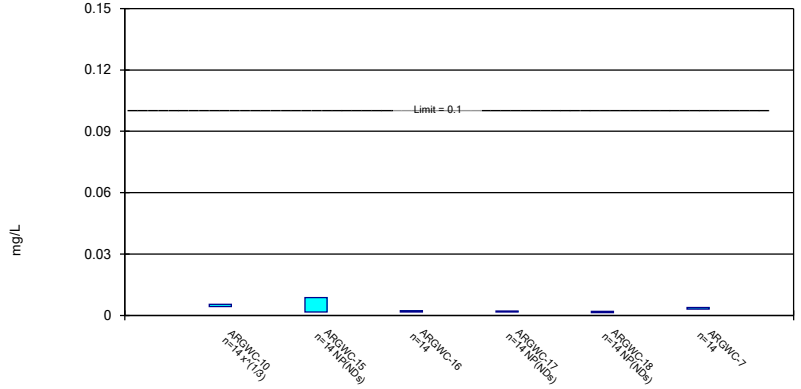

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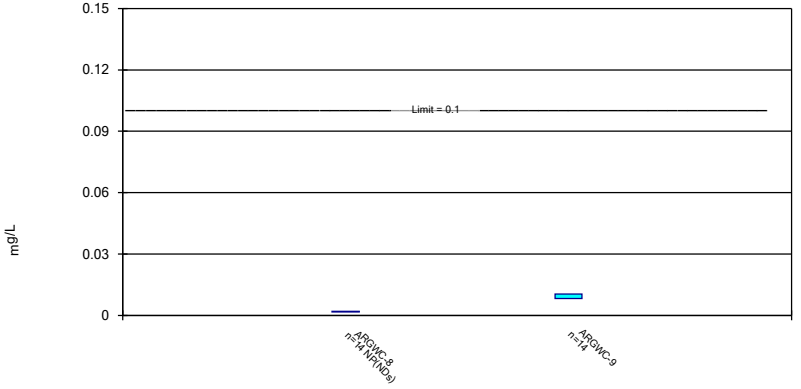

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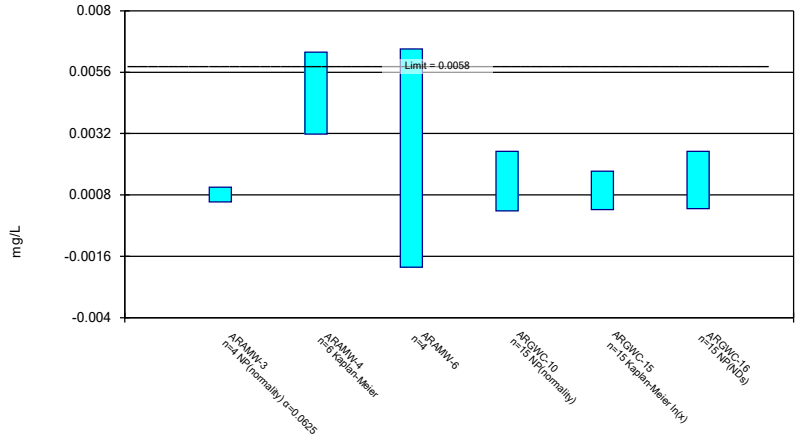

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Parametric and Non-Parametric (NP) Confidence Interval

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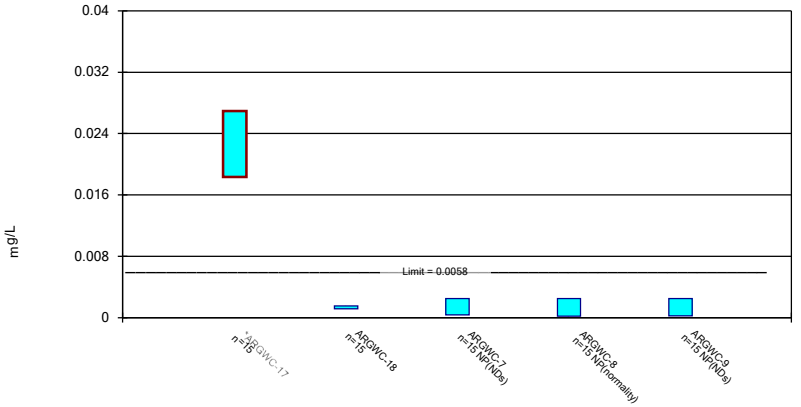

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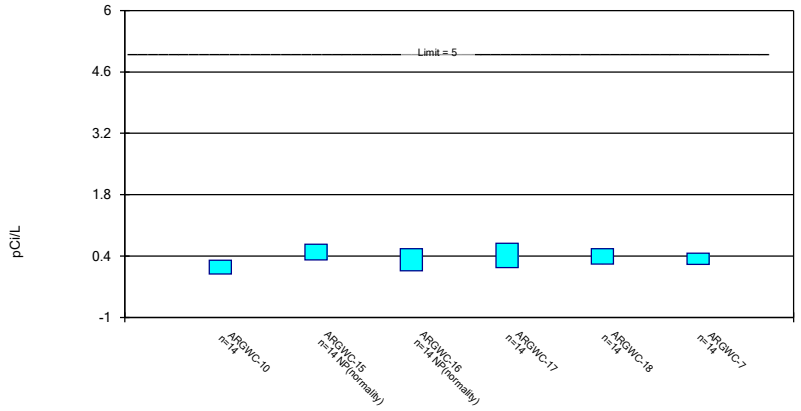

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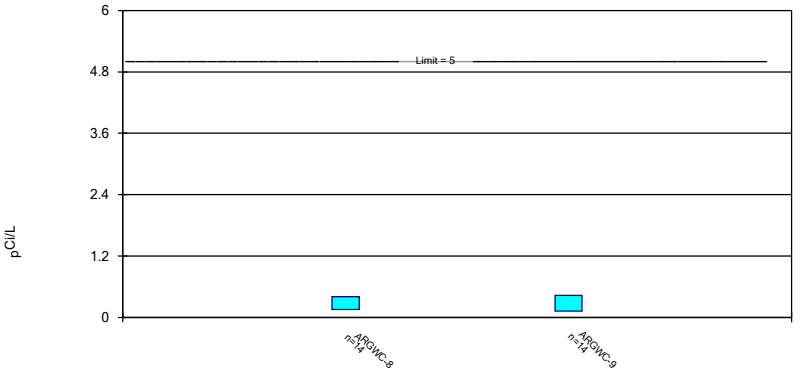

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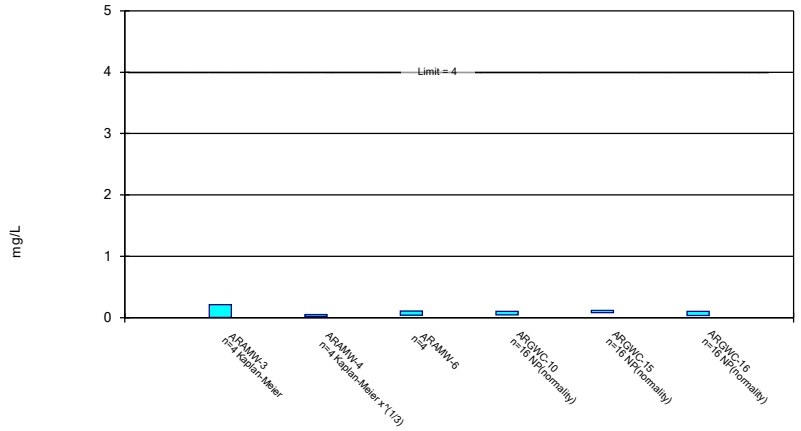

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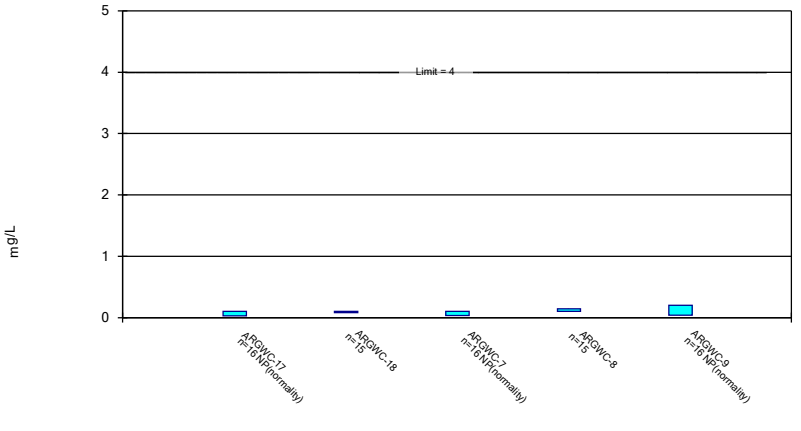

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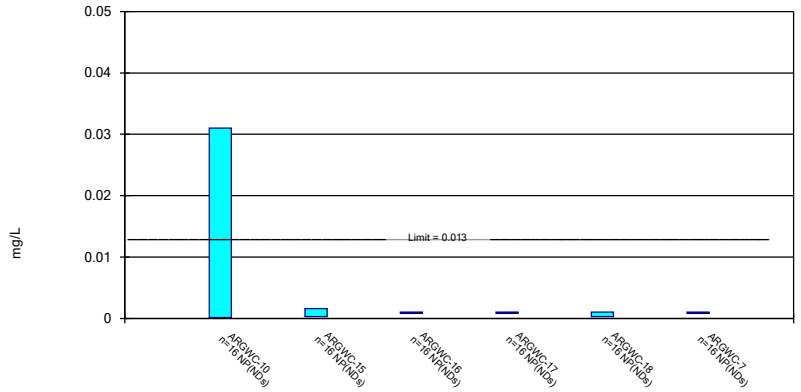

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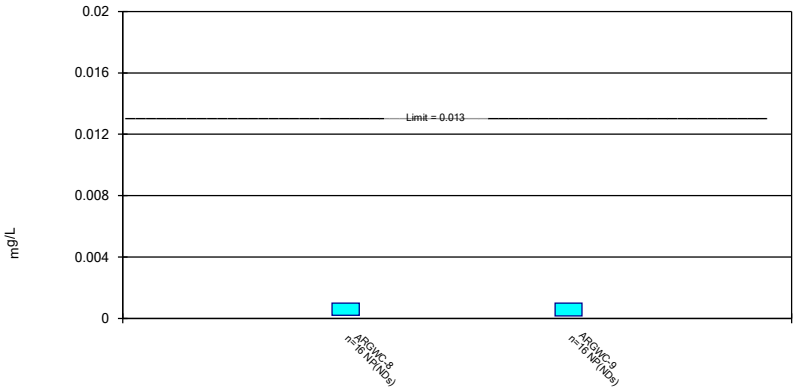

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Parametric and Non-Parametric (NP) Confidence Interval

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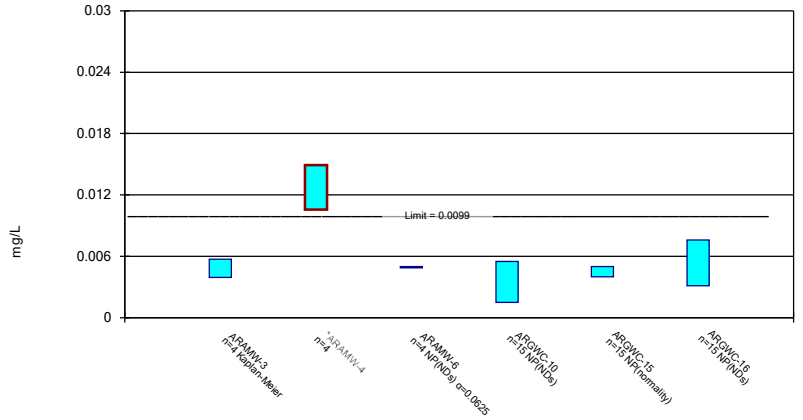

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Parametric and Non-Parametric (NP) Confidence Interval

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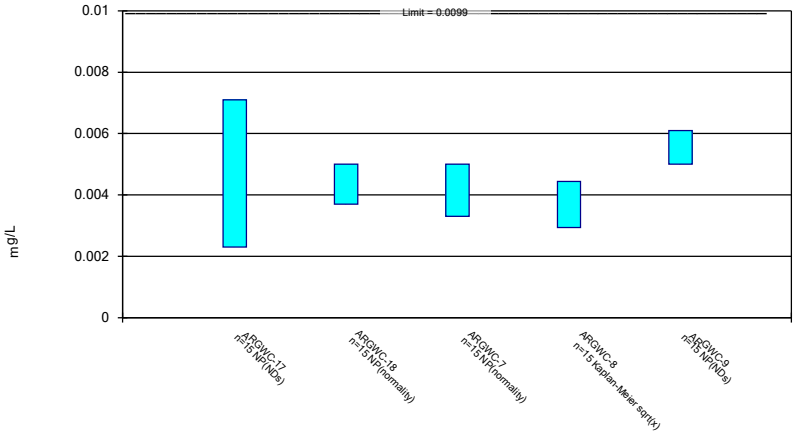

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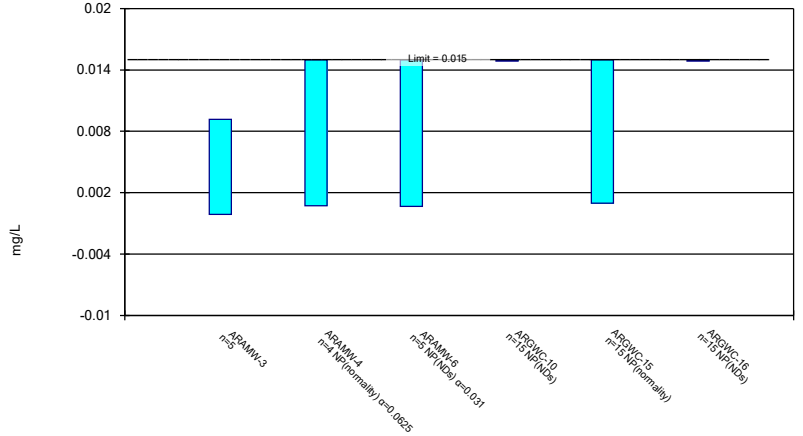

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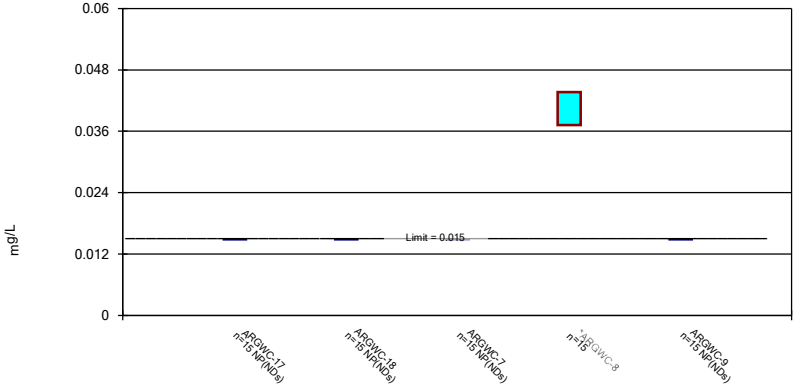

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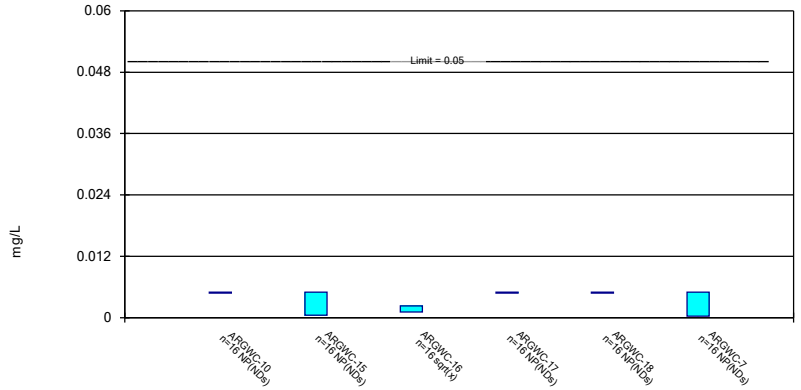

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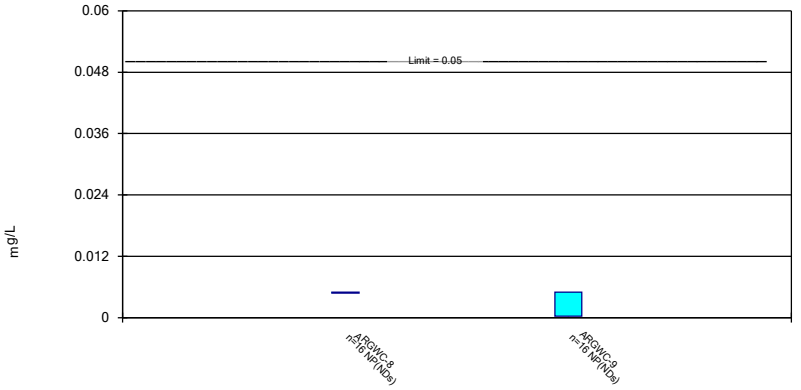

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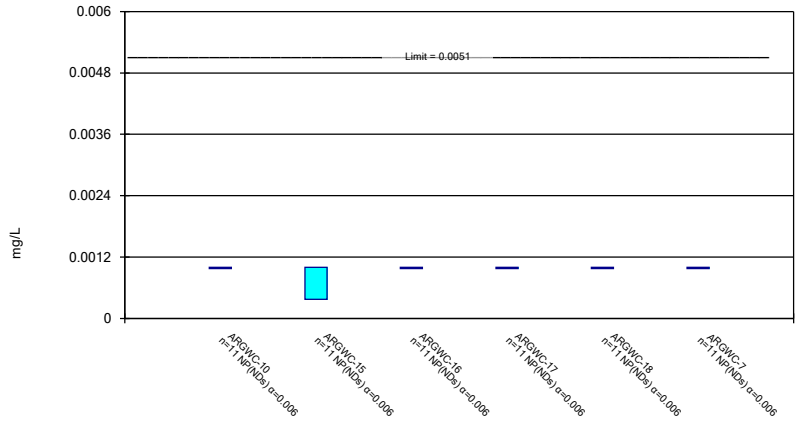

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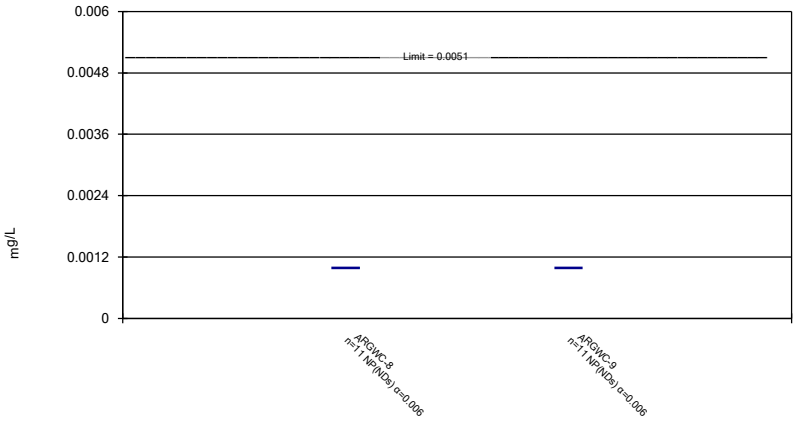

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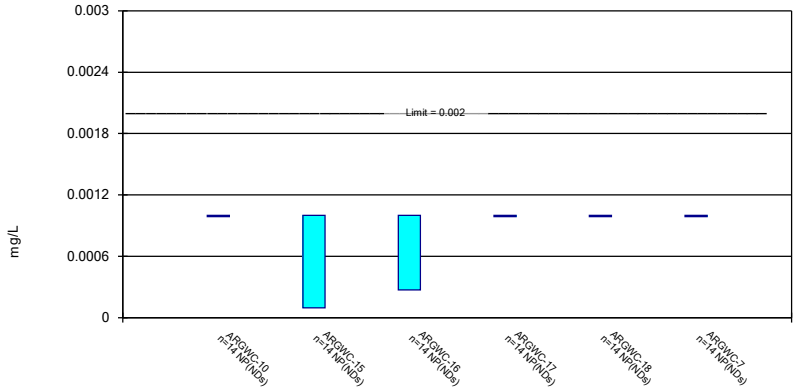

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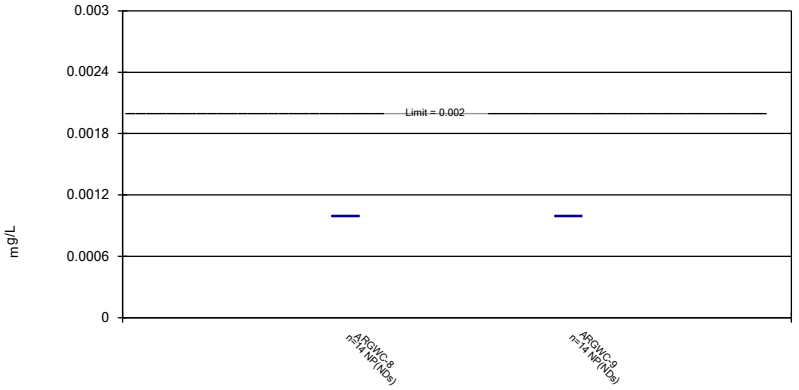

Constituent: Thallium Analysis Run 4/6/2021 3:39 PM View: Appendix IV
Plant Arkwright Client: Southern Company Data: ArkwrightSanitasMatrix

APPENDIX D

SEMI-ANNUAL REMEDY SELECTION AND DESIGN PROGRESS REPORT

Semi-Annual Remedy Selection and Design Progress Report

Georgia Power Company – Plant Arkwright

Ash Pond 3 Landfill and Monofill

Macon, Georgia

Project No.: 6122201429

Prepared for:

Georgia Power

Atlanta, Georgia

7/30/2021

CERTIFICATION STATEMENT

This *Semi-Annual Remedy Selection and Design Progress Report, Georgia Power Company – Plant Arkwright, Ash Pond 3 (AP-3) Landfill and Monofill*, has been prepared in accordance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a).

GEORGIA REGISTERED No. 025565 PROFESSIONAL ENGINEER GREGORY J. WRENN

Gregory J. Wrenn, P.E.
Project Manager

7/30/21
Date

NICHOLAS JARRAD MCMILLAN GEORGIA REGISTERED PROFESSIONAL GEOLOGIST No. 2308

Nicholas McMillan, P.G.
Senior Geologist

7/30/21
Date

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LIST OF ACROYMNS

ACM	Assessment of Corrective Measures
AP-3	Ash Pond 3
bgs	below ground surface
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
COC	Constituent of Concern
CSM	Conceptual Site Model
GA EPD	Georgia Environmental Protection Division
GWPS	Groundwater Protection Standard
ISCO	In-Situ Chemical Oxidation
ISCR	In-Situ Chemical Reduction
K	Hydraulic Conductivity
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
P.E.	Professional Engineer
P.G.	Professional Geologist
PRB	Permeable Reactive Barrier
SEP	Sequential Extraction Procedure
SSL	Statistically Significant Level
US EPA	United States Environmental Protection Agency

1.0 INTRODUCTION

1.1 Purpose

This Semi-annual Remedy Selection and Design Progress Report (the semi-annual progress report) was prepared for Georgia Power Company (Georgia Power) Plant Arkwright Ash Pond 3 (AP-3) Landfill and Monofill in accordance with the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D. For ease of reference, the US EPA CCR rules are cited within this report. This semiannual progress report describes the progress made during the first half of 2021 in selecting and designing a remedy and updates the 2020 semi-annual progress report submitted in February 2021 (Wood, 2021c).

Pursuant to 40 CFR § 257.96(b), Georgia Power initiated an Assessment of Corrective Measures (ACM) for the AP-3 Landfill and Monofill in July 2020 for statistically significant levels (SSLs) of cobalt and molybdenum in compliance wells ARGWC-17 and ARGWC-8, respectively, exceeding the state groundwater protection standards (GWPS). A notice of ACM was submitted to the GA EPD July 9, 2020 following the identification of the cobalt and molybdenum SSLs. Subsequently, Georgia Power completed an ACM report on December 4, 2020. The SSLs for molybdenum and cobalt are horizontally and vertically delineated onsite. Statistical analysis of the February 2021 semi-annual groundwater data identified a lithium SSL, exceeding the state GWPS, in well ARAMW-4. The SSL for lithium is horizontally delineated by monitoring well ARGWC-17; vertical delineation of lithium is being evaluated at this location.

In addition to the assessment monitoring program at the Site, Georgia Power conducted a human health and ecological risk evaluation to evaluate cobalt and molybdenum SSLs in groundwater at AP-3 Landfill and Monofill. The evaluation provides one of many lines of evidence that will be evaluated and factored into the remedy selection process, which will be completed in accordance with § 257.97. Based on this risk evaluation, concentrations of constituents detected in groundwater at AP-3 Landfill and Monofill between August 2016 and March 2020 are not expected to pose a risk to human health or the environment (Wood, 2020a). Cobalt and molybdenum data collected since March 2020 are consistent with data used in the risk evaluation; therefore, the conclusions provided in the *2020 Risk Evaluation Report* are supported by current conditions. The risk evaluation will be updated to include lithium, and the results will be submitted with the Remedy Selection Report.

The purpose of this semi-annual progress report is to document the process of selecting corrective measure(s) for groundwater as provided in the *Assessment of Corrective Measures Report, Georgia Power Company – Plant Arkwright Ash Pond 3 Landfill and Monofill* (Wood, 2020b) in December 2020. This process is typically iterative and may be composed of multiple steps to analyze the effectiveness of corrective measures to improve groundwater quality. Once potential corrective measures are identified, they are further evaluated using the criteria outlined in 40 CFR § 257.96(c). Additional details are provided within the ACM Report and the cited state and federal regulations. Pursuant to 40 CFR § 257.96(a), semi-annual progress reports will be included as an appendix to the routine semi-annual groundwater monitoring and corrective action reports to document the efforts of evaluating and progressing towards selecting a groundwater corrective measure.

As discussed in the last progress report, two of the six potential corrective measures were considered not suitable for further evaluation to treat the site-specific constituents in groundwater. These included the installation of a permeable reactive barrier (PRB) and a vertical barrier wall. The following corrective measures are potentially feasible for use at AP-3 Landfill and Monofill. A comparative screening of the corrective measures is provided in **Table 1: Evaluation of Remedial Technologies**.

1. Geochemical Manipulation (In-Situ Injection)
2. Hydraulic Containment (Pump and Treat)
3. Monitored Natural Attenuation (MNA)
4. Phytoremediation

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Wood, 2020b) to support the groundwater remedy selection process and address potential changes in site conditions as appropriate during the ash pond closure. The adaptive site management approach will take existing site conditions, including natural attenuation mechanisms into account. Characterization activities to evaluate attenuation mechanisms at the site include collection of data necessary to progressively evaluate the existing and long-term effectiveness of these processes in the aquifer and reduce uncertainty for decision making at each screening step as listed in the EPA guidelines for MNA (US EPA 2007, 2015). In 2007, the US EPA issued MNA technical guidance specific to inorganic constituents (US EPA, 2007) that contained four "tiers." The 2015 MNA guidance retains these four "tiers," but describes them as "phases" as described below (US EPA, 2015). This 2015 MNA document for inorganic contaminants expands on and is designed to be a companion to the 1999 MNA guidance.

- Phase I: Demonstration that the groundwater plume is *not expanding*.

- Phase II: Determination that the *mechanism and rate* of the attenuation process are sufficient.

- Phase III: Determination that the *capacity* of the aquifer is sufficient to attenuate the mass of contaminant within the plume and the *stability* of the immobilized contaminant is sufficient to resist re-mobilization.

- Phase IV: Design of a *performance monitoring program* based on an understanding of the mechanism of the attenuation process, and establishment of contingency remedies tailored to site-specific characteristics.

Georgia power will address Phase IV during the development of the future corrective action monitoring plan, after the final remedy selection report.

1.2 Site Background and Overview of Ash Pond Closure

Plant Arkwright is located in Bibb County, Georgia approximately 6 miles northwest of the city of Macon (**Figure 1: Site Location Map**). Georgia Power officially closed the AP-3 Landfill and Monofill in 2010 with GA EPD's approval and in accordance with the solid waste landfill regulations specified by GA EPD Rule 391-3-4.14, in effect at the time of its closure. The CCR unit referred to as the AP-3 Landfill and Monofill is defined as an inactive CCR Landfill per GA EPD Rule 391-3-4-.10(2)(a)(3).

Georgia Power has elected to remove CCR material from the AP-3 Landfill and Monofill and will place it in a new, lined landfill that will be constructed at the site. Georgia Power intends to replace the Permit Application currently before GA EPD to reflect this change. The closure of the AP-3 Landfill and Monofill by the removal of CCR provides significant source control that reduces the potential for migration of CCR constituents to groundwater. Corrective measures discussed in this ACM are being evaluated to address SSLs of constituents in groundwater at the compliance boundary.

1.3 Regulatory Program Status and Nature and Extent

Pursuant to 40 CFR § 257.96(b), Georgia Power initiated an ACM for the AP-3 Landfill and Monofill in July 2020 for SSLs of cobalt and molybdenum exceeding the state GWPS. The ACM Report was subsequently prepared for AP-3 Landfill and Monofill and submitted to GA EPD in December 2020. The compliance monitoring well network is shown in **Figure 2: Monitoring Network Well Location Map**. Based on recent statistical analysis of the February 2021 groundwater data, the following wells and constituent pairs exhibited SSLs:

- Cobalt: ARGWC-17
- Lithium: ARAMW-4
- Molybdenum: ARGWC-8

Three assessment/delineation wells (delineation piezometers [ARAMW-3, ARAMW-4, and ARAMW-6]) were installed to horizontally and vertically characterize the groundwater quality in the areas of exceedances, and one additional monitoring well (ARGWA-24) was installed to characterize the groundwater flow and groundwater quality upgradient of AP-3 Landfill and Monofill. The locations of the additional piezometers and monitoring well are shown in **Figure 2** and well construction details are provided in **Table 2: Summary of Monitoring Network Well and Delineation/Assessment Well Construction and Groundwater Elevations**. Supporting details and documents (e.g., boring logs, well construction tables) have been previously submitted with the ACM Report or separate well installation reports. A potentiometric surface map illustrating the February 2021 groundwater elevations collected during the February 2021 semi-annual groundwater monitoring event are provided on **Figure 3: Potentiometric Surface - February 2021**.

The horizontal extent of the SSL of cobalt in ARGWC-17 is delineated as shown in **Figure 4: Isoconcentration Map for Cobalt February 2021**. The vertical delineation piezometer (ARAMW-4) for ARGWC-17 shows cobalt concentrations during this semi-annual sampling event (0.0053 milligrams per liter [mg/L]) that are below the state cobalt GWPS (0.0058 mg/L). The GWPS for cobalt increased from 0.0025 mg/L in October 2020 to 0.0058 mg/L in February 2021. This increase in the GWPS concentration is due to the higher cobalt concentration (0.0058 mg/L) of a background sample collected in December 2020 from the newly installed background monitoring well ARGWA-24. This is discussed in further detail below (3.2 Upgradient Groundwater Analysis).

Based on the groundwater data reported in the *2020 Semi-Annual Groundwater Monitoring and Corrective Action Report* (Wood, 2021a), the SSL of molybdenum identified in ARGWC-8 is horizontally and vertically delineated to below the state GWPS by delineation piezometers ARAMW-6 and ARAMW-3, respectively, and is contained within the property boundary of Plant Arkwright as depicted in **Figure 5: Isoconcentration Map for Molybdenum February 2021**.

An SSL for lithium was identified in February 2021 at delineation piezometer ARAMW-4 (0.014 mg/L) following the fourth sample analyzed for lithium. The lithium concentration observed at ARAMW-4 in February 2021 is similar to concentrations observed at previous sampling events. The SSL of lithium identified at ARAMW-4 is horizontally delineated by ARGWC-17 but not yet vertically delineated (**Figure 6: Isoconcentration Map for Lithium February 2021**). The evaluation of further vertical delineation of lithium is ongoing.

Georgia Power continues to monitor the groundwater at AP-3 Landfill and Monofill in accordance with the assessment monitoring program while ACM efforts are implemented to evaluate potential corrective measures to address SSLs of cobalt, lithium, and molybdenum in select AP-3 Landfill and Monofill monitoring wells.

2.0 SUMMARY OF WORK COMPLETED

The following summarizes the field investigations and data evaluations completed since the issuance of the *2020 Semi-Annual Groundwater Monitoring and Corrective Action Report* in February 2021 (Wood, 2021a) in support of delineating Appendix IV SSLs and evaluation of the corrective measures presented in the ACM Report. The routine assessment monitoring event conducted in February 2021 is discussed in the *2021 Annual Groundwater Monitoring and Corrective Action Report* (Wood, 2021b).

- *February 2021*: Routine semi-annual groundwater samples were collected from the fourteen compliance wells and the three delineation piezometers. In addition to routine Appendix III and IV constituents, major cations and anions were sampled and analyzed in support of evaluating the geochemical composition of the groundwater in the overburden and bedrock for the purpose of evaluating potential attenuation mechanisms.

- *March 2021*: A non-routine groundwater sample was collected from newly installed background well ARGWA-24. The sample was analyzed for the complete suite of Appendix III and IV constituents. The March 2021 sampling was the third background sampling event of eight background sampling events that will be used to establish baseline for Appendix III and IV constituents.

- *March 2021*: Hydraulic conductivity tests using solid slugs were performed at 6 well locations (ARAMW-4, ARGWA-12, ARGWA-13, ARGWA-24, ARGWC-17, and ARGWC-18) to assess hydraulic conductivity of both overburden and bedrock materials at AP-3 Landfill and Monofill. Slug test data was gathered for both slug in and slug out tests and the data were analyzed using AQTESOLV aquifer test software (HydroSOLVE, 2021).

- *May 2021*: Assessment of target constituent stability was performed in support of Phase I of the US EPA Guidelines for MNA (US EPA, 2015). Plume stability for AP-3 Landfill and Monofill SSLs was performed through statistical evaluation of constituent trends on a site-wide and individual well basis.

3.0 SUMMARY OF RESULTS

The following presents the results of work outlined in Section 2.0.

3.1 Groundwater Analysis

Table 3: Analytical Data Summary summarizes the analytical data, referenced in Section 2.0, collected between June 2020 and March 2021 from the AP-3 Landfill and Monofill from the compliance wells, assessment wells, and the piezometers screened in CCR material. Assessment wells at the Site are used to delineate SSLs while the piezometers screened in the AP-3 Landfill and Monofill ash are not part of the monitoring well network. The laboratory reports for the August 2020, September/October 2020, November/December 2020, and February 2021 are provided in the *2021 Annual Groundwater Monitoring and Corrective Action Report,* dated July 30, 2021 (Wood, 2021b).

Major ion compositions of samples collected during the June 2020 sampling event were assessed using Stiff diagrams for the purpose of groundwater characterization at the Site and evaluation of remedial options and are presented in the *Semi-Annual Remedy Selection and Design Progress Report* (Wood, 2021c). Conclusions from this geochemical assessment were:

- The majority of upgradient wells indicate a sodium-bicarbonate type groundwater;
- Downgradient wells are mixed-type and include sodium bicarbonate and magnesium sulfate water types.
- Delineation piezometers are calcium bicarbonate or calcium sulfate water types
- There are differences in groundwater composition between upgradient and downgradient groundwater suggesting variable underlying lithology and/or groundwater flow.

New data collected in February 2021 for this reporting period confirms the groundwater compositions evaluated in previous sampling events of June 2020 for compliance wells and in December 2020 for ARGWA-24 (**Table 3**). This analytical data will be used in evaluation of the effectiveness of corrective measures being considered at AP-3 Landfill and Monofill.

3.2 Upgradient Groundwater Analysis

Well ARGWA-24 was installed on November 12, 2020 in the overburden (water table) aquifer to supplement the existing upgradient wells screened in the upper bedrock. This was the third time ARGWA-24 has been sampled. Analytical results indicate that the concentrations of Appendix III and Appendix IV constituents are similar to concentrations in other upgradient compliance wells (**Table 3**). An exception to this is the slightly higher cobalt concentration of 0.0058 mg/L observed at ARGWA-24 on December 1, 2020 which is approximately twice the

concentration of previously analyzed samples from the AP-3 Landfill and Monofill background compliance wells. Cobalt concentrations for samples collected on February 9, 2021 (0.00088 (J) mg/L) and on March 29, 2021 (0.00033 (J) mg/L) were lower than the concentration observed in December 1, 2020. These results will be compared to analytical results from future sampling events.

3.3 Summary of Hydraulic Conductivity Testing and Data Analyses

Hydraulic conductivity testing was conducted using the solid slug testing method at a total of six monitoring wells and piezometers to estimate the horizontal hydraulic conductivity (K) of the aquifer in the screened interval. Drawdown time graphs were generated by the AQTESOLV software for curve matching to applicable analytical solutions to generate an estimate of K. The results of the slug in and slug out tests are summarized on **Table 4: Summary of Hydraulic Conductivity Testing Results** and AQTESOLV data plots are provided in **Appendix A: AQTESOLV Data Plots**. The Bouwer-Rice (1976) model was used for curve matching, which is used for an unconfined aquifer that exhibits a smooth exponential recovery to static water levels during the test and assumes quasi steady-state conditions and ignores elastic storage in the aquifer.

The resulting average K values of slug in and slug out tests for wells screened in the overburden (ARGWA-24, ARGWC-17, and ARGWC-18) ranged from 1.63 x 10^{-4} cm/sec (0.46 feet/day) to 5.80 x 10^{-3} cm/sec (16.44 feet/day) and for wells screened in the bedrock (ARAMW-4, ARGWA-12, and ARGWC-13) ranged from 1.85 x 10^{-4} cm/sec (0.52 feet/day) to 8.02 x 10^{-4} cm/sec (2.27 feet/day). These results are consistent with the results of previous slug tests performed at the Site.

These results will be used to update the understanding of the aquifer properties and help support evaluation of groundwater corrective measures.

3.4 Site-Specific Dissolved Constituent Stability Assessment

As a component of a remedial design for groundwater, the US EPA (2015) guidance recommends a demonstration of the stability of the dissolved constituents and removal through attenuation mechanisms in the aquifer media. Two methods of evaluating constituent concentration stability are through assessment of individual wells' concentration trends and site-wide concentration trends. These methods are described in **Appendix B: Constituent Concentration Stability Analysis.**

3.4.1 Individual Wells' Trends

Concentrations of cobalt, lithium, and molybdenum for compliance wells and assessment piezometers that have been sampled more than four times were assessed for statistically significant concentration trends. **Table 5: Summary of Individual Well/ Analyte Trend Results** presents a summary of the concentration trend analysis results of the 51 unique trends for well/analyte pairs. Approximately half of the pairs have statistically significant decreasing trends (24 well/analyte pairs) while the other half have no trends (27 well/analyte pairs). Results of individual wells' concentration trends supports retaining MNA as an option for evaluation as a potential corrective measure at AP-3 Landfill and Monofill.

3.4.2 Site-Wide Concentration Trends

Site-wide stability can also be assessed. The statistical examination of the combined trends of all the wells can determine if the overall trend is significantly statistically different from random concentration variations in individual wells. One such test is the van Belle and Hughes (1984) method for testing homogeneity of trends between seasons which can also be applied to testing homogeneity of trends across a basin or group of sample points. Historical concentrations of cobalt, lithium, and molybdenum from AP-3 Landfill and Monofill compliance wells and assessment wells were analyzed using the van Belle and Hughes method in R Project statistical software. A summary of the results of the van Belle site-wide trend analysis is listed below.

- Cobalt: No significant non-zero trend
- Lithium: Decreasing non-zero trend
- Molybdenum: No significant non-zero trend

The trend analysis method is presented in **Appendix B**. The site-wide trend analysis indicates there is no site-wide increasing trends in AP-3 Landfill and Monofill with lithium having a decreasing trend.

3.4.3 Summary of Constituent Concentration Stability Assessment

These initial results of the individual well and site-wide trends indicate there is no consistent evidence of increasing constituent of concern (COC) concentrations trends. Based on current data, the site-wide trend is decreasing or stable, which makes MNA a viable corrective measure to evaluate. Further evaluations will be conducted of the mechanisms and rates of attenuation along with the capacity of the aquifer to sufficiently attenuate the mass of COCs.

3.5 Updated Conceptual Model

Following the collection and assessment of the additional data described in Sections 3.1 through 3.4, the conceptual model for the AP-3 Landfill and Monofill has been updated accordingly. The additional data collected during the first semi-annual period of 2021 indicates that:

- Major ion composition of groundwater at the Site does not appear to vary greatly over time based on concentrations of groundwater samples collected in June and December 2020 and February 2021. This may also indicate that seasonal variations in groundwater geochemical compositions are relatively minor.
- Background cobalt concentrations are variable based on analytical results from three background samples collected from compliance well ARGWA-24. The higher concentration of cobalt (0.0058 mg/L) in well ARGWA-24 was the highest background concentration observed at the Site. Additional data from future background sampling events from this well will be compared to the results of the first three background sampling events.
- Hydraulic conductivity values estimated from slug tests performed in March 2021 are consistent with previous hydraulic conductivity estimates for the Site. Hydraulic conductivity values for wells screened in overburden range from 1.63×10^{-4} cm/sec to 5.80×10^{-3} cm/sec and wells screened in bedrock range from 1.85×10^{-4} cm/sec to 8.02×10^{-4} cm/sec. These values are within previous AP-3 Landfill and Monofill slug test results.
- The constituent concentration stability analyses indicate there are no statistically significant increasing trends at AP-3 Landfill and Monofill, and Georgia Power will continue to evaluate MNA as a potential corrective measure.

4.0 UPDATED EVALUATION OF CORRECTIVE MEASURES

As discussed in the last progress report, two of the six potential corrective measures were eliminated from further evaluation. These included the installation of a PRB and a subsurface vertical barrier wall. In situ stabilization was found to be infeasible in the December 2020 ACM Report (Wood, 2020b). The other four potential corrective measures were retained for further evaluation. Data collected during the past six months reported in the current progress report have not resulted in the elimination of additional corrective measures. Therefore, the following corrective measures will be retained for further evaluation.

- Geochemical Approaches (In-Situ Injection)
- Hydraulic Containment (Pump and Treat)
- Monitored Natural Attenuation
- Phytoremediation

4.1 Geochemical Approaches (In-Situ Injection)

In-situ injections of reagents are a remediation technology for inorganic constituents such as cobalt, lithium, and molybdenum. Cobalt and molybdenum can be precipitated and/or immobilized under different combinations of pH and redox conditions. Lithium, however, because of its low reactivity and high solubility is not amenable to precipitation or immobilization involving manipulation of pH and redox conditions, but lithium may be sorbed to aluminum and iron oxides as well as clay minerals. To understand the biogeochemical processes that would effectively immobilize target constituents in groundwater, site-specific bench-scale and pilot-scale treatability studies are needed to prepare an effective amendment to create the appropriate conditions for the precipitation and/or sorption of these constituents without mobilizing other naturally occurring constituents.

Air sparging, in-situ chemical oxidation (ISCO), or in-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility and/or toxicity of certain inorganic compounds. However, mixing and contact with the target constituents are necessary and can be difficult to achieve in heterogeneous materials and/or fine-grained materials. In-situ injections may be considered a potentially viable corrective measure to address cobalt and molybdenum in groundwater at AP-3 Landfill and Monofill, especially in smaller, more localized areas. In-situ injection would likely need to be combined with an alternative technology to address lithium to provide a complete remedy for the former CCR unit. This technology will be retained for further evaluation.

4.2 Hydraulic Containment and Dewatering (Pump and Treat)

Generally, hydraulic containment (or control) refers to the use of groundwater extraction to artificially induce a hydraulic gradient and capture or control the migration of impacted groundwater. Groundwater pump and treat is often considered to be a viable remedial technology at many sites (US EPA, 1996). This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water body or sewer system, reinjection into the aquifer, or reuse at the Site. Groundwater pump and treat is often relatively slow as a means to restore groundwater quality over a long-term period. However, pump and treat can be effective as a stand-alone remedy, a temporary (interim) measure, or in combination with another measure to provide hydraulic containment to limit constituent migration toward a potential receptor.

Groundwater extraction for hydraulic control can often effectively address the variety of inorganic constituents encountered at CCR sites, including cobalt, lithium, and molybdenum. Extraction technologies may be more efficient for conservative species, such as lithium, which are not readily attenuated by other mechanisms (e.g., precipitation, adsorption). Therefore, pump and treat is a potentially viable corrective measure for cobalt, lithium, and molybdenum in groundwater at the AP-3 Landfill and Monofill and will be retained for further evaluation.

4.3 Monitored Natural Attenuation

The US EPA defines MNA as the reliance on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a time frame that is reasonable compared to that offered by other more active methods. The natural attenuation processes that are at work in such a remediation approach include a variety of physical, chemical, and/or biological processes that, under favorable conditions, act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of constituents in soil or groundwater (US EPA, 2015).

Attenuation mechanisms for inorganic constituents, such as cobalt, lithium, and molybdenum are either physical (e.g., dilution, dispersion, flushing, and related processes) or chemical (e.g., sorption or oxidation reduction reactions). Both molybdenum and cobalt undergo sorption to iron and manganese oxides and depending on specific redox conditions. Thus, chemical attenuation mechanisms through sorption reactions, discussed in more detail below, may be viable as a corrective measure for cobalt and molybdenum. Other attenuation mechanisms may be appropriate as a polishing step.

The US EPA uses four phases to establish whether MNA can be successfully implemented for inorganics at a given site. The phases (or steps) include:

1. Demonstration that SSLs in groundwater are delineated and stable or decreasing.

2. Evaluation of the mechanisms and rates of attenuation.

3. Assessment if the capacity of the aquifer is sufficient to attenuate the mass of constituents in groundwater and that the immobilized constituents are stable and will not remobilize.

4. Design of a performance monitoring program based on the mechanisms of attenuation and including a decision framework for consideration of a contingent remedy tailored to site-specific conditions should MNA not perform adequately.

A successful MNA approach requires a good understanding of hydrogeologic conditions and may require additional information and monitoring over an extended period of time. MNA is a potentially viable corrective measure for cobalt, lithium, and molybdenum in groundwater at the AP-3 Landfill and Monofill and will be retained for further evaluation.

4.4 Phytoremediation

Phytoremediation is the use of plants to degrade, immobilize, and/or contain constituents in soil, groundwater, surface water, and sediments. Phytoremediation has emerged as a viable alternative to more active environmental cleanup technologies, especially for large areas with relatively low levels of constituents in shallow soils or groundwater.

The effectiveness of groundwater remediation using traditional phytoremediation approaches may be limited by compacted soil conditions that impede root penetration or target groundwater that is too deep for root access. Given that groundwater wells at the AP-3 Landfill and Monofill that exhibited SSLs for cobalt, lithium, and molybdenum are screened at depths up to 54 feet below ground surface (bgs), traditional plantings for phytoremediation are not expected to be successful. However, more recently, an engineered approach to phytoremediation, the *TreeWell*® system (a proprietary system developed by Applied Natural Sciences) has been shown to overcome these constraints (Gatliff et al., 2016).

By installing a cased "well" for tree planting using large diameter auger technology, extraction of deeper groundwater zones (i.e., in excess of 50 feet bgs) can be achieved since the surface of the "well" is sealed and only groundwater from a targeted zone is allowed into the cased-off borehole. This type of system mirrors a traditional mechanical extraction system using the trees as pumps. Also, the advantage of an engineered phytoremediation system includes no above-ground water management needs and limited long-term operation and maintenance requirements following the establishment of the system.

Based on the site-specific hydrogeology (i.e. relatively slow groundwater velocities observed in the uppermost aquifer) and low levels of cobalt, lithium, and molybdenum as well as the availability of potential planting area downgradient of ARGWC-8, an engineered phytoremediation approach is a potentially viable corrective measure for SSLs observed in the vicinity of ARGWC-8. However, the limited physical space for installation of a phytoremediation system between the Ash Monofill and the AP-3 Landfill in the area of ARGWC-17 and ARAMW-4 would limit the effectiveness of the *TreeWell*® system. Thus, a phytoremediation may be technically feasible as a remedial technology for cobalt, lithium, and molybdenum ; however, there is not enough site information currently available to decide to eliminate this technology from further evaluation and this technology will be retained until data indicates it is not a feasible technology.

4.5 Summary of Corrective Measures Evaluated

Based on the data collected to date, four of the six potential measures being evaluated for the AP-3 Landfill and Monofill will be retained for further evaluation. These include geochemical approaches (in-situ injection), hydraulic containment (pump and treat), monitored natural attenuation, and phytoremediation. The corrective measures PRB and subsurface vertical barrier walls have been removed from consideration. In situ stabilization was found to be infeasible in the December 2020 ACM Report (Wood, 2020b).

Given that groundwater conditions and/or statistical results continue to change and are likely to also be affected by closure and construction activities at AP-3 Landfill and Monofill, an adaptive site management approach will continue to be used to address groundwater conditions as a consequence of closure activities. Continued groundwater monitoring and updates to the statistical analyses will further refine the conceptual site model (CSM) and allow for the continued evaluation of an appropriate groundwater corrective measure at the Site.

5.0 PLANNED ACTIVITIES & ANTICIPATED SCHEDULE

The proposed closure by removal approach provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. During the pond closure by excavation and consolidation of CCR, temporary changes in site conditions may occur that must be considered as part of remedy selection. Georgia Power has initiated activities as outlined in the ACM Report (Wood, 2020b) to support the groundwater remedy selection process and address potential changes in site conditions as appropriate. The adaptive site management approach toward remedy selection may be adjusted over the site's life cycle as new site information and technologies become available. To this end, Georgia Power will continue its data collection efforts as necessary in support of efforts to refine the CSM and to further evaluate the feasibility of the corrective measures retained for further evaluation such that an appropriate groundwater corrective measure may be selected.

Some of the data needed to refine the conceptual site model may be collected concurrent with routine groundwater monitoring events under the assessment monitoring program. Additional data collection and analysis outside of routine groundwater monitoring events may include geochemical modeling, material compatibility testing, bench scale studies, and pilot tests and may require an estimated one to two additional years to complete. Once sufficient data are available to arrive at a focused number of corrective measures or a combination of corrective measures that would provide an effective groundwater remedy, necessary steps will be taken to implement a remedy at the Site in accordance with 40 CFR § 257.97(a).

Supplementary data collection and evaluation activities proposed to be completed during the next semi-annual reporting period are presented in the **Table 6: Proposed ACM Supplementary Data Analyses and Collection Tasks for Second Semi-Annual Period 2021** and summarized below.

- Groundwater Sampling
    - Collect groundwater samples from existing well network currently sampled under the assessment monitoring program.
    - Collect and analyze Groundwater samples for major anions and cations for all compliance wells and delineation piezometers during semi-annual sampling events.
- Aquifer Matrix Material Sampling, Sequential Extraction Process, and Soil Characterization

  - Conduct a series of specialized analyses on unconsolidated aquifer solids to further evaluate the attenuation capacity and attenuation rates of constituents of interest in the aquifer in support of evaluating MNA consistent with US EPA's four-phase approach.
  - Collect and analyze soil/aquifer material samples using the Sequential Extraction Procedure (SEP) to assess how well constituents are bound to the solid materials of the aquifer.
  - Characterize soils at the Site based on cation exchange capacity and grain size analysis.

- Evaluate plausible ionic speciation of the contaminants by reviewing field parameters (pH, oxidation reduction potential, temperature, and specific conductance) collected during previous field events.
- Continue to evaluate the need for additional vertical delineation of lithium at ARAMW-4.

Georgia Power will continue to prepare semi-annual progress reports to document AP-3 Landfill and Monofill conditions, results associated with additional data collection, and the progress in selecting and designing a groundwater remedy in accordance with 40 CFR § 257.97(a). Georgia Power will include future semi-annual progress reports in routine groundwater monitoring and corrective action reports.

6.0 REFERENCES

Bouwer, H. and R.C. Rice, 1976, A slug test method for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells, Water Resources Research, vol. 12, no. 3, pp. 423-428.

Gatliff, E., Linton P., Riddle, D. and Thomas P., 2016, Phytoremediation of Soil and Groundwater.

Hydrosolve Inc., 2007, AQTESOLV for Windows Version 4.5, Reston, VA (software).

United States Environmental Protection Agency (US EPA), 1996, Final Guidance: Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites, EPA 540/R-96/023, Office of Solid Wasted and Emergency Response Directive 9283.1-12, October 1996.

United States Environmental Protection Agency (US EPA), 2007, Monitored Natural Attenuation of Inorganic Contaminants in Groundwater, Volume 1, EPA/600/R-07/139, Office of Research and Development, October 2007.

United States Environmental Protection Agency (US EPA), 2015. Use of Monitored Natural Attenuation for Inorganic Contaminants in Groundwater at Superfund Sites, U.S Environmental Protection Agency, Office of Solid Wasted and Emergency Response, Directive 9283.1-36. August 2015.

van Belle, G. and Hughes, J.P., 1984. Nonparametric Tests for Trend in Water Quality. Water Resources Research, 20, 127-136.

Wood Environment & Infrastructure Solutions, Inc., 2020a. Risk Evaluation Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill and Monofill, December 2020.

Wood Environment & Infrastructure Solutions, Inc., 2020b. Assessment of Corrective Measures Report – Georgia Power Company Plant Arkwright Ash Pond 3 Landfill Monofill, December 2020.

Wood Environment & Infrastructure Solutions, Inc., 2021a. 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report – Georgia Power Company Plant Arkwright AP-3 Landfill and Monofill, February 26, 2021.

Wood Environment & Infrastructure Solutions, Inc., 2021b. 2021 Annual Groundwater Monitoring and Corrective Action Report – Georgia Power Company Plant Arkwright AP-3 Landfill and Monofill, July 28, 2021.

Wood Environment & Infrastructure Solutions, Inc., 2021c. Semi-Annual Remedy Selection and Design Progress Report – Georgia Power Company Plant Arkwright AP-3 Landfill and Monofill, February 26, 2021.

TABLES

TABLE 1
EVALUATION OF REMEDIAL TECHNOLOGIES
Plant Arkwright
Ash Pond-3 Landfill and Monofill
Macon, GA

	Regulatory Citation for Criteria:	GA EPD Rule 391-3-4.10(6)	
Corrective Measure	**Description**	**Performance**	**Reliability**
Geochemical Approaches (In-Situ Injection)	Use of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of Cobalt (Co) and molybdenum Mo. Under anaerobic conditions, Co would be attenuated within sparingly soluble sulfide minerals; this approach might also increase the attenuation of Mo. Because Lithium (Li) does not readily adsorb or precipitate, in-situ injections are likely not an effective remedial technology for Li. Under aerobic conditions, soluble iron or manganese and oxygen (either via air sparging or through a chemical oxidant) would be injected to promote the formation of iron or manganese (oxy-) hydroxides for subsequent sorption of Co (and potentially, Mo) onto these mineral phases. If sufficient iron is present in groundwater, the use of air sparging alone may be considered to precipitate iron (oxy-) hydroxides for sorption. In-situ chemical oxidation (ISCO) or in-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility of certain inorganic compounds, including Co. However, the main attenuation mechanism for Co and Mo is sorption, which is more dependent on pH than redox.	The effective immobilization of Co has been shown under aerobic and anaerobic conditions; however, the anaerobic approach (involving the injection of an electron donor together with iron or manganese and sulfur) requires careful study and testing. While aerobic approaches are somewhat less complex, additional aquifer characterization is needed to further evaluate these options. It is currently not well understood whether molybdenum can be efficiently attenuated using in- situ redox manipulations due to slow reaction kinetics. Mo attenuation under both aerobic and anaerobic conditions needs to be further evaluated but is expected to occur. Mo is more strongly sorbed to aluminum oxides than other metal oxides, and it is generally less sorptive and more mobile compared to Co. It is not thought that lithium can be efficiently attenuated using in- situ redox manipulations because of Lithium's low reactivity. Lithium is generally less sorptive and more mobile compared to Co.	Reliability dependent on permeability of the subsurface and the amount and distribution of secondary iron or manganese (oxy-) hydroxides (for aerobic approach), or electron donors and soluble iron or manganese and sulfur that can be consistently distributed (for anaerobic approach). Reliable technology if injected materials can be distributed throughout the impacted aquifer. Bench- and/or pilot-scale treatability testing programs are needed to understand the biogeochemical processes that would effectively reduce migration of Co and Mo in groundwater. In-Situ Injection would need to be used in conjunction with another technology to reduce migration of Lithium.
Pump and Treat (Hydraulic Containment)	Pump and Treat (P&T) refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture or control the migration of impacted groundwater. This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse (e.g., land application, CCR conditioning, etc.). It is applicable to a variable mix of inorganic constituents, including dissolved Co, Mo, and Li.	P&T is effective at providing hydraulic control, but it is unclear whether full groundwater remediation can be achieved without further understanding attenuation mechanisms at the Site. At the AP-3 Landfill and Monofill, implementation of the corrective measure is contingent on completing additional assessment activities (i.e. high-resolution site characterization, additional pump tests, flow modeling, and capture zone analysis). This is needed to refine the constituent distribution in the subsurface to target specific zones for pumping for improved mass recovery efficiency/ effectiveness and to further evaluate the potential remedy performance.	Generally reliable for hydraulic containment, but uncertainty exists whether groundwater remediation goals can be achieved within a reasonable time frame without further understanding attenuation mechanisms.
Monitored Natural Attenuation (MNA)	MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation or oxidation- reduction reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. Attenuation mechanisms for inorganic constituents at CCR sites, including cobalt (Co) molybdenum (Mo) and Lithium (Li) at AP-3 Landfill and Monofill, are either physical (e.g. dilution, dispersion, flushing, and related processes) or chemical (e.g., sorption or oxidation reduction reactions). The chemical attenuation processes include precipitation and sorption reactions such as adsorption on the surfaces of soil minerals, absorption into the matrix of soil minerals, or partitioning into organic matter. Further, oxidation-reduction (redox) reactions, via abiotic or biotic processes, can transform the valence states of some inorganic constituents to less soluble and thus less mobile forms. For Co and Mo, the main attenuation processes include sorption to iron and manganese oxides (Co and Mo), aluminum oxides (Mo), and formation of sparingly soluble sulfide minerals (Co). For Li, aluminum salts have shown promise for precipitating Li out of freshwater. Lithium's low reactivity and high solubility makes it difficult to chemically attenuate such that physical methods of dispersion and flushing are needed for attenuation.	Physical and chemical MNA mechanisms for Co, Mo, and Li, including dilution, dispersion, sorption, and oxidation reduction reactions can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. Attenuation processes for Co and Mo may already be occurring at the site as evidenced by data from some wells. Source control will improve the mass balance such that the buffer capacity of the aquifer is unlikely to be exhausted, and the attenuation processes already at work for Co at AP-3 Landfill and Monofill will further enhance ongoing MNA. Lithium's low reactivity and high solubility makes it difficult to chemically attenuate such that physical methods of dispersion and flushing are needed for attenuation.	Reliable as long as the aquifer conditions that result in Co, Mo, and Li attenuation remain favorable and/or are being enhanced and sufficient attenuation capacity is present. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by dissolved Co, Mo, and/or Li, or in combination with a second technology, particularly for Li.
Permeable Reactive Barrier	Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. Either ZVI-Carbon matrix or solid carbon (bio-barrier) are currently proposed for the concurrent removal of Co and Mo. The carbon could be composed of peat moss, mulch or another carbon source. Exact placement of the PRB is contingent on finalization of the nature and extent characterization. PRB walls are typically keyed into the bedrock. While the relatively shallow groundwater in the residuum and fractured bedrock is connected to the groundwater in more competent bedrock, the higher permeability/conductivity of the PRB is not expected to impede groundwater flow. PRBs can also be constructed as "funnel and gate" systems, where a barrier wall directs groundwater to a smaller "treatment gate" filled with reactive media.	PRBs have been shown to effectively address Co and Mo in groundwater if the right mix of reactive materials (e.g., ZVI and carbon) is selected for concurrent removal/immobilization of these constituents. The approach is expected to achieve GWPS for Co and Mo as impacted groundwater passes through the reactive barrier. Mo redox kinetics may be slow and hence a thicker wall might be needed relative to solely treating for Co. Furthermore, additional testing is required to select the appropriate sorptive media mix, especially related to Mo. Due to its low reactivity, lithium may be more challenging to treat using PRBs. In laboratory studies, zeolites and clays such as bentonite and kaolin have been shown to exhibit lithium-sorbing characteristics. However, there have not been field testing of these material and generally PRBs are not recommended for Lithium remediation.	Reliable groundwater corrective measure, but loss of reactivity over time may require re-installation depending on the duration of the remedy. Additional data collection, including conducting a bench and/or pilot study, is needed to better characterize current attenuation mechanisms and/or select the appropriate reactive media mix for a PRB wall. A different media and a secondary technology may be needed to remediate Lithium.
Phytoremediation / *TreeWell*®	Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground water treatment system and infrastructure. Within the context of the AP-3 Landfill and Monofill, this corrective measure would likely use an engineered (proprietary) TreeWell® phytoremediation system along the point of compliance or downgradient edge of the impacted groundwater for hydraulic control. The system promotes root development to the targeted groundwater zone (depth), allowing for hydraulic control of impacted groundwater. In addition, immobilization of Co, Mo and Li within the root zone as well as incidental uptake of dissolved Co, Mo, and Li with groundwater is expected to occur concurrent with hydraulic control.	Once established (typically at the end of the third growing season), a TreeWell® system is effective for providing hydraulic containment of groundwater, and potential reduction of Co concentrations through immobilization and/or uptake and sequestration in the tree biomass; however, the main purpose is to provide hydraulic control. Given the site-specific hydrogeology and reported Co, Mo, and Li groundwater concentrations surrounding the AP-3 Landfill and Monofill, the approach is currently considered to be applicable in this setting. However, additional aquifer testing and/or groundwater flow modeling may be needed to confirm suitability for the area downgradient of the AP-3 Landfill and Monofill.	Engineered phytoremediation is a proven technology where hydrogeologic factors are taken into account (e.g., hydraulic conductivity, flow velocity, depth to impacted groundwater zone, etc.). This is considered an active remedial approach through the use of trees as the "pumps" driving the system. Careful design will be needed to select the proper species, which will include consideration of groundwater chemistry, plant uptake of constituents, and groundwater flow modeling to evaluate the required number and placement of TreeWell® units.

TABLE 1
EVALUATION OF REMEDIAL TECHNOLOGIES
Plant Arkwright
Ash Pond-3 Landfill and Monofill
Macon, GA

	Regulatory Citation for Criteria:	GA EPD Rule 391-3-4.10(6)	
Corrective Measure	**Description**	**Performance**	**Reliability**
Subsurface Vertical Barrier Walls	This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. In general, barrier walls are designed to provide containment; localized treatment achieved through the sorption or chemical precipitation reactions from construction of the walls are incidental to the design objective. Barrier walls can also be used in downgradient applications; to limit discharge to a surface water feature or to reduce aquifer recharge from an adjacent surface water feature when groundwater extraction wells are placed near one. A variety of barrier materials can be used, including cement and/or bentonite slurries, geomembrane composite materials, or driven materials such as steel or vinyl sheet pile. Groundwater extraction from upgradient of the barrier is required to avoid groundwater mounding behind the barrier.	Barrier walls are a proven technology for seepage control and/or groundwater cutoff at impoundments. Slurry walls are limited by the depth of installation, which is approximately 90 ft bgs. However, site-specific geologic and technology-specific considerations may limit this depth to shallower installations. Within the context of AP-3 Landfill and Monofill, a barrier wall might be used in conjunction with a "funnel and gate" system for a PRB rather than a stand-alone technology. As such, groundwater with Co, Mo, and Li above GWPS could either be directed to "treatment gates" for passive treatment (in a PRB) or migration of impacted groundwater could be minimized via barrier wall installation. Additional treatment technology, beyond treatment for Cobalt, would be needed to treat Lithium in either extracted groundwater or in-situ. Additional subsurface investigations, aquifer testing, and compatibility testing with site- specific groundwater will be needed.	Generally reliable as a barrier to groundwater flow; however, treatment of downgradient groundwater is incidental and not the primary objective.

TABLE 1
EVALUATION OF REMEDIAL TECHNOLOGIES
Plant Arkwright
Ash Pond-3 Landfill and Monofill
Macon, GA

	GA EPD Rule 391-3-4.10(6)	GA EPD Rule 391-3-4.10(6)	GA EPD Rule 391-3-4.10(6)
Corrective Measure	**Ease of Implementation**	**Potential Impacts**	**Time Requirement to Begin/Complete**
Geochemical Approaches (In-Situ Injection)	Moderate. Installation of injection well network or other injection infrastructure would be required. Alternative installation approaches may be considered, such as along the downgradient edge of impacted groundwater, which would function similar to a PRB application. Potential for clogging of aquifer matrix and/or injection well infrastructure. Chemical distribution during injections (i.e., radius of influence) needs to be evaluated.	Minimal impacts are expected if remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and bench/pilot study results. Redox-altering processes have the potential to mobilize naturally-occurring constituents as an unintended consequence if not properly studied and implemented.	Installation of the injection network can be accomplished relatively quickly (1 to 2 months). However, a thorough pre-design investigation, geochemical modeling, and/or bench- and/or pilot-testing will be required to obtain design parameters prior to design and construction of the corrective measure, which may take up to 24 months. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation process kinetics of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.
Pump and Treat (Hydraulic Containment)	Moderate. Proven approach, and supplemental installation of extraction wells/trenches is fairly straightforward. The extracted groundwater may potentially require an above-ground treatment system. A variety of sorption and precipitation approaches exist for ex-situ treatment of Co and Mo. Treatment of Lithium would require a different treatment technology than Co and Mo. Operation and maintenance (O&M) requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Moderate. The main potential impacts are related to the presence and operation of an on-site above-ground water treatment facility and related infrastructure to convey and treat extracted groundwater. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone. Also nearby surface water will need to be taken into account for hydraulic and geochemical impacts to pumping groundwater.	Installation of extraction wells and/or trenches can be accomplished relatively quickly (1 to 2 months). However, additional aquifer testing, system design and installation, and permit approval may be required, which may take up to 24 months. The initiation of the approach would be contingent on the start-up of the wastewater treatment infrastructure. Hydraulic containment can be achieved relatively quickly after startup of the extraction system, but uncertainty exists with respect to the time to achieve GWPS without additional data collection to better understand attenuation mechanisms for Co, Mo, and Li.
Monitored Natural Attenuation (MNA)	Reasonably implementable with respect to infrastructure, but moderate to complex with respect to documentation. Proven approach, but additional data are needed to show that the existing attenuation capacity is sufficient to meet site objectives within a reasonable timeframe. A monitoring well network already exists to implement future groundwater monitoring efforts.	None. MNA relies on the natural processes active in the aquifer matrix to reduce constituent concentrations without disturbing the surface or the subsurface.	The infrastructure to initiate MNA is already in place. Demonstrating attenuation mechanisms and capacity can be time-consuming and can take up to 24 months. MNA is expected to be successful within a reasonable time frame.
Permeable Reactive Barrier	Moderate to difficult. Trenching would be required to install a mix of reactive materials in the subsurface. Continuous trenching may be the most feasible construction method. Site-specific geology (i.e., partially weathered bedrock layer) poses a possible constructability challenge when attempting to key PRB material into competent bedrock. Installation methods and materials are readily available. Once installed, treatment will be passive and O&M requirements are minimal if replacement of the PRB is not necessary.	Minimal impacts are expected following the construction of the remedy. However, ZVI has the potential to create anaerobic conditions downgradient of the PRB wall that may mobilize redox-sensitive naturally-occurring constituents. These conditions need to be carefully monitored. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures.	Installation of a PRB can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, bench- and/or pilot- testing would be required to obtain design parameters prior to design and construction of the remedy, which may take up to 24 months. Once installed, the time to achieve GWPS downgradient of the PRB is anticipated to be relatively quick.
Phytoremediation / *TreeWell*®	Reasonably implementable to moderate. Engineered approach has been proven effective, and specific depth zones can be targeted. Trees are installed as "tree wells" in a large diameter boring to get the roots deep enough to intercept impacted groundwater flow paths. Area must be clear of above- and below- ground structures (i.e., power lines). The system, once established (approximately three growing seasons), is a self-maintaining, sustainable remedial system that has no external energy requirements and little maintenance (i.e., efforts normally associated with landscaping).	Minimal impacts are expected. In fact, there are several positive impacts expected, including enhanced aesthetics, wildlife habitat, and limited energy consumption.	The design phase will require some groundwater modeling for optimal placement of the TreeWell® units, which may take up to 6 months. Depending on the number of required units, the installation effort is expected to last several weeks. Hydraulic capture/control is expected approximately three years after planting and system performance is expected to further improve over time.
Subsurface Vertical Barrier Walls	Moderate to difficult. Trenching will be required to fill in the various slurry mixes; alternatively, sheet pile installations can be accomplished without excavation of trenches. The application of barrier walls is limited by the depth of installation, which similar to PRBs, should be keyed into a low permeability layer such as a thick clay layer or bedrock. Installation methods and materials are readily available. Once installed, above-ground infrastructure to pump and treat groundwater will be required. O&M requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Minimal impacts are expected following the construction of the remedy. Short- term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures. Changes to groundwater flow patterns due to installation of the barrier wall are expected, which can affect other aspects of groundwater corrective action. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone that may result in the mobilization of other constituents that may require treatment.	Installation of a barrier wall can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, some design phase and additional aquifer and compatibility testing will be required, which may take up to 24 months. Once installed, preventing migration of constituents dissolved in groundwater is anticipated to be relatively quick. Since this approach does not treat the downgradient area of impacted groundwater but prevents migration from a source area, it will likely have to be maintained long- term and coupled with other approaches.

TABLE 1
EVALUATION OF REMEDIAL TECHNOLOGIES
Plant Arkwright
Ash Pond-3 Landfill and Monofill
Macon, GA

	GA EPD Rule 391-3-4.10(6)			
Corrective Measure	**Institutional Requirements**	**Other Env or Public Health Requirements**	**Relative Costs**	**Retention Evaluation**
Geochemical Approaches (In-Situ Injection)	Deed restrictions may be necessary until in-situ treatment has achieved GWPS. An underground injection control (UIC) permit (for in-situ injections) would be required to implement this corrective measure. No other institutional requirements are expected at this time.	None expected at this point. Potential mobilization of redox- sensitive constituents exists during implementation of an anerobic attenuation approach. Following installation, the remedy is passive.	Medium (depending on expanse of injection network required and injectate volume required per derived design parameters)	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Pump and Treat (Hydraulic Containment)	Depending on the effluent management strategy, an NPDES permit may be required, or obtaining an underground injection control (UIC) permit may be needed if groundwater reinjection is chosen. In addition, deed restrictions may be required as long as groundwater conditions are above regulatory standards for unrestricted use.	Above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on remedy duration, complexity of above-ground treatment system, and volume of water processed)	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Monitored Natural Attenuation (MNA)	MNA may require the implementation of institutional controls, such as deed restrictions, to preclude potential exposure to groundwater within the footprint of impacted groundwater until GWPS are achieved.	Little to no physical disruption to remediation areas and no adverse construction- related impacts are expected on the surrounding community.	Low to medium	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Permeable Reactive Barrier	Deed restrictions may be necessary for groundwater areas upgradient of the PRB (if not installed along the waste boundary). No other institutional requirements are expected at this time.	None expected at this point. Following installation, the remedy is passive. However, certain treatment media (such as ZVI) have the potential to mobilize naturally-occurring constituents downgradient of the PRB.	Medium to high (for installation) - minimal O&M requirements if replacement is not necessary	Not retained for further analysis; removal of the source material limits the use of PRBs as a remedial alternative.
Phytoremediation / *TreeWell*®	Deed restrictions may be necessary for groundwater areas upgradient of the TreeWell® system. No other institutional requirements are expected at this time.	None expected at this point. Innovative and green technology may be positively received by various stakeholders. Following installation, the remedy is passive and does not require external energy.	Medium (for installation) - minimal O&M requirements	Retained for further analysis; may be used as a stand-alone corrective measure or in conjunction with other potential groundwater corrective measures.
Subsurface Vertical Barrier Walls	Deed restrictions may be necessary for groundwater areas downgradient of the barrier wall until remedial goals are met. No other institutional requirements are expected at this time.	Due to the need for groundwater extraction associated with barrier walls, above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on length and depth of wall, remedy duration and complexity of above-ground treatment system)	Not retained for further analysis; removal of the source material limits the use of subsurface vertical barrier walls as a remedial alternative.

TABLE 2
SUMMARY OF MONITORING NETWORK WELL AND DELINEATION/ASSESSMENT WELLS CONSTRUCTION AND GROUNDWATER ELEVATIONS
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Well	Northing [1]	Easting [1]	Top of Casing Elevation [3]	Ground Surface Elevation (feet above MSL)	Top of Screen Elevation (feet above MSL)	Screen Bottom Elevation (feet above MSL)	Screen Length (feet)	Total Well Depth on Construction Log (ft below land surface)	Total Well Depth Measured February 2021 (feet below TOC) [4]	Water Bearing Zone Screened	Location	Depth to Water (ft below TOC) 2/8/2021	Groundwater Elevation (ft above msl) 2/8/2021
Compliance Wells													
ARGWA-3	1066899.39	2437431.05	388.33	386.53	356.23	346.23	10.00	40.50	40.50	Overburden	Upgradient	34.66	353.67
ARGWA-5	1066885.12	2437209.22	376.15	373.51	353.81	343.81	10.00	30.00	30.00	Overburden	Upgradient	22.83	353.32
ARGWA-12	1067003.79	2436788.45	372.72	369.27	349.23	339.23	10.00	30.34	35.20	Bedrock	Upgradient	14.78	357.94
ARGWA-13	1065951.25	2438129.93	371.57	368.10	337.66	327.66	10.00	40.74	43.31	Bedrock	Upgradient	23.73	347.84
ARGWA-14	1066023.70	2438384.80	388.25	384.94	339.28	329.28	10.00	55.96	58.45	Bedrock	Upgradient	44.74	343.51
ARGWA-24	1066895.28	2437012.63	373.75	370.85	355.90	345.90	10.00	25.30	28.13	Overburden	Upgradient	20.04	353.71
ARGWC-7	1064410.59	2438355.19	352.42	348.97	314.17	304.17	10.00	46.50	50.20	Overburden	Downgradient	22.73	329.69
ARGWC-8	1064521.98	2437572.92	355.53	352.19	322.59	312.59	10.00	40.50	43.22	Overburden	Downgradient	25.12	330.41
ARGWC-9	1065139.64	2437297.96	367.07	363.44	338.64	328.64	10.00	36.50	38.20	Overburden	Downgradient	19.83	347.24
ARGWC-10	1065419.44	2437192.51	370.67	367.56	342.56	332.56	10.00	41.50	38.35	Overburden	Downgradient	20.51	350.16
ARGWC-15	1065475.43	2438360.90	375.64	371.76	342.08	332.08	10.00	39.98	43.00	Bedrock	Downgradient	28.92	346.72
ARGWC-16	1065263.69	2438174.15	364.90	361.52	340.24	330.24	10.00	31.58	34.52	Bedrock	Downgradient	20.13	344.77
ARGWC-17	1065458.82	2438009.52	368.24	365.04	344.45	334.45	10.00	30.89	34.50	Overburden	Downgradient	21.66	346.58
ARGWC-18	1064482.45	2437961.15	355.20	351.92	314.11	304.11	10.00	48.11	50.65	Overburden	Downgradient	28.02	327.18
Assessment/Delineation Wells													
ARAMW-3	1064530.73	2437569.81	355.39	352.20	298.20	288.20	10.00	64.00	67.87	Bedrock	Downgradient	24.55	330.84
ARAMW-4	1065463.83	2438004.43	367.86	364.56	320.56	310.56	10.00	54.00	57.72	Bedrock	Downgradient	21.36	346.50
ARAMW-6	1064439.35	2437606.99	337.46	334.23	314.23	304.23	10.00	30.00	32.33	Overburden	Downgradient	12.89	324.57

Notes:
1. Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983 surveyed in June 2020.
2. MSL indicates feet above mean sea level and referenced to North American Vertical Datum of 1988
3. Elevations based on June 2020 survey.
4. TOC indicates top of casing.

TABLE 3
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID												
		AP3PZ-1A*	AP3PZ-2A*	AP3PZ-3A*	AP3PZ-4A*	AP3PZ-5A*	ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-3	ARGWA-5	ARGWA-5	ARGWA-5	ARGWA-5
		6/23/2020	6/23/2020	6/23/2020	6/23/2020	6/23/2020	6/25/2020	8/18/2020	9/29/2020	2/9/2021	6/25/2020	8/18/2020	9/29/2020	2/9/2021
APPENDIX III	Boron	0.62	0.40	1.8	2.1	2.5	<0.039	NA	<0.039	<0.039	<0.039	NA	<0.039	<0.039
	Calcium	180	77	250	200	350	5.7	NA	5.9	5.8	6.1	NA	6.6	6.2
	Chloride	8.5	5.5	8.5	7.0	6.0	2.8	NA	2.7	3.0	4.2	NA	4.6	5.1
	Fluoride	0.23	0.40	0.77	0.57	0.49	0.060 (J)	<0.026	0.065 (J)	0.084 (J)	0.042 (J)	<0.026	0.051 (J)	0.055 (J)
	Sulfate	360	95	230	130	560	1.6	NA	<0.38	<0.76	<0.38	NA	<0.38	<0.76
	TDS	820	340	930	590	1300	NA	NA	62	62	NA	NA	61	73
	pH	6.51	7.08	7.05	7.29	7.60	5.75	6.47	6.02	5.94	5.87	6.18	6.00	5.88
APPENDIX IV	Antimony	NA	NA	NA	NA	NA	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA
	Arsenic	NA	NA	NA	NA	NA	NA	<0.00031	<0.00031	<0.00031	NA	<0.00031	<0.00031	<0.00031
	Barium	NA	NA	NA	NA	NA	NA	0.021	0.019	0.017	NA	0.031	0.030	0.028
	Beryllium	NA	NA	NA	NA	NA	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018
	Cadmium	NA	NA	NA	NA	NA	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022
	Chromium	NA	NA	NA	NA	NA	NA	0.0027	0.0030	0.0028	NA	<0.0015	<0.0015	<0.0015
	Cobalt	0.033	<0.00013	0.0012 J	0.00097 J	0.0038	<0.00013	0.00022 (J)	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lead	NA	NA	NA	NA	NA	NA	0.00019 (J)	<0.00013	<0.00013	NA	0.00013 (J)	<0.00013	<0.00013
	Lithium	0.25	0.14	0.62	0.75	0.91	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
	Mercury	NA	NA	NA	NA	NA	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA
	Molybdenum	0.27	0.017	0.25	0.40	0.49	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061
	Radium	NA	NA	NA	NA	NA	NA	0.132 U	-0.0479 U	-0.187 U	NA	1.12	-0.146 U	-0.312 U
	Selenium	NA	NA	NA	NA	NA	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015
	Thallium	NA	NA	NA	NA	NA	NA	0.00036 (J)	<0.00015	<0.00015	NA	0.00021 (J)	0.00019 (J)	<0.00015
GEOCHEMISTRY	Total Alkalinity	240	180	430	390	440	33	NA	NA	44	37	NA	NA	41
	Bicarbonate Alkalinity	240	180	430	390	440	33	NA	NA	44	37	NA	NA	41
	Carbonate Alkalinity	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0
	Dissolved Iron	22	39	20	9.2	13	<0.020	NA	NA	<0.020	<0.020	NA	NA	<0.020
	Magnesium	44	18	31	24	37	2.8	NA	NA	3.3	2.5	NA	NA	2.5
	Dissolved Manganese	6.0	2.8	1.2	0.37	1.1	<0.00087	NA	NA	<0.00087	0.00091 (J)	NA	NA	<0.00087
	Nitrate as N	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	NA	NA	0.076 (J)	0.056 (J)	NA	NA	0.41
	Nitrite as N	0.033 J	0.048 J	<0.029	<0.029	<0.029	<0.029	NA	NA	<0.29	<0.029	NA	NA	<0.029
	Potassium	24	11	20	16	18	1.3	NA	NA	1.1	1.2	NA	NA	1.1
	Sodium	23	12	13	9.5	22	7.9	NA	NA	7.2	7.9	NA	NA	8.1
	Sulfide	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1

Notes:
1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. (J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * indicates well is screened within the AP-3 Landfill CCR material.

TABLE 3
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID											
		ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-12	ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-13	ARGWA-14	ARGWA-14	ARGWA-14	ARGWA-14
		6/26/2020	8/18/2020	9/29/2020	2/9/2021	6/25/2020	8/18/2020	9/29/2020	2/9/2021	6/25/2020	8/19/2020	9/29/2020	2/11/2021
APPENDIX III	Boron	<0.039	NA	<0.039	<0.039	0.32	NA	0.35	0.38	<0.039	NA	0.039 (J)	0.062 (J)
	Calcium	15	NA	14	14	100	NA	120	110	27	NA	29	40
	Chloride	12	NA	12	15	5.8	NA	5.7	6.0	4.0	NA	4.1	4.6
	Fluoride	0.051 (J)	0.041 (J)	0.060 (J)	0.070 (J)	0.030 (J)	<0.026	0.032 (J)	0.036 (J)	0.17	0.12	0.13	0.25
	Sulfate	9.0	NA	8.3	11	410	NA	540	520	3.3	NA	4.1	10
	TDS	NA	NA	130	140	NA	NA	880	890	NA	NA	210	290
	pH	5.94	6.48	5.88	5.92	5.80	6.15	5.75	5.79	6.38	6.62	6.80	7.02
APPENDIX IV	Antimony	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA
	Arsenic	NA	<0.00031	<0.00031	<0.00031	NA	<0.00031	<0.00031	<0.00031	NA	<0.00031	0.00038 (J)	<0.00031
	Barium	NA	0.079	0.079	0.076	NA	0.025	0.024	0.022	NA	0.041	0.062	0.066
	Beryllium	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018
	Cadmium	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	0.00023 (J)	<0.00022
	Chromium	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015
	Cobalt	0.00013 (J)	0.00019 (J)	0.00016 (J)	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Lead	NA	<0.00013	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013
	Lithium	0.0061	0.0039 (J)	0.0048 (J)	0.0051	0.0067	0.0042 (J)	0.0052	0.0054	0.0071	<0.0034	0.0044 (J)	<0.0034
	Mercury	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	0.00065 (J)	<0.00061	<0.00061
	Radium	NA	0.587	0.765	1.16	NA	0.380 U	0.403 U	0.394 U	NA	-0.0549 U	0.134 U	0.413 U
	Selenium	NA	<0.0015	<0.0015	<0.0015	NA	0.019	0.021	0.019	NA	<0.0015	<0.0015	<0.0015
	Thallium	NA	<0.00015	<0.00015	<0.00015	NA	<0.00015	<0.00015	<0.00015	NA	<0.00015	0.00019 (J)	<0.00015
GEOCHEMISTRY	Total Alkalinity	69	NA	NA	77	61	NA	NA	71	140	NA	NA	260
	Bicarbonate Alkalinity	69	NA	NA	77	61	NA	NA	71	140	NA	NA	260
	Carbonate Alkalinity	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0
	Dissolved Iron	<0.020	NA	NA	<0.020	<0.020	NA	NA	<0.020	0.023 (J)	NA	NA	NA
	Magnesium	8.9	NA	NA	8.7	66	NA	NA	77	5.0	NA	NA	7.7
	Dissolved Manganese	<0.00087	NA	NA	0.0019 (J)	0.010	NA	NA	0.0066	0.0078	NA	NA	NA
	Nitrate as N	0.12	NA	NA	0.18	0.95	NA	NA	2.0	0.085 (J)	NA	NA	0.18
	Nitrite as N	<0.029	NA	NA	0.14	0.044 (J)	NA	NA	<0.029	<0.029	NA	NA	<0.029
	Potassium	2.5	NA	NA	2.4	3.2	NA	NA	3.4	2.2	NA	NA	2.7
	Sodium	11	NA	NA	11	14	NA	NA	16	43	NA	NA	58
	Sulfide	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1

Notes:
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2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
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   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
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TABLE 3
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Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID										
		ARGWA-24	ARGWA-24	ARGWA-24	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-7	ARGWC-8	ARGWC-8	ARGWC-8	ARGWC-8
		12/1/2020	2/9/2021	3/29/2021	6/25/2020	8/18/2020	9/29/2020	2/10/2021	6/23/2020	8/20/2020	10/1/2020	2/10/2021
APPENDIX III	Boron	<0.039	<0.039	0.071 (J)	0.091	NA	0.078 (J)	0.10	1.1	NA	1.2	1.3
	Calcium	13	9.7	10	11	NA	11	9.9	52	NA	52	48
	Chloride	12	11	11	4.6	NA	4.1	4.5	7.0	NA	6.0	6.4
	Fluoride	<0.044	0.057 (J)	0.039 (J)	<0.026	<0.026	0.027 (J)	0.033 (J)	0.12	0.054 (J)	0.14	0.17
	Sulfate	7.5	8.5	7.4	42	NA	38	43	62	NA	57	60
	TDS	120	110	120	NA	NA	140	110	NA	NA	270	270
	pH	5.85	5.69	5.76	5.75	6.70	5.92	5.77	6.37	6.34	6.44	6.45
APPENDIX IV	Antimony	<0.00038	NA	<0.00038	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA
	Arsenic	<0.00031	<0.00031	0.0014	NA	<0.00031	<0.00031	<0.00031	NA	<0.00031	<0.00031	<0.00031
	Barium	0.038	0.036	0.035	NA	0.044	0.042	0.041	NA	0.053	0.052	0.049
	Beryllium	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	<0.0015	NA	0.0031	0.0031	0.0030	NA	<0.0015	<0.0015	<0.0015
	Cobalt	0.0058	0.00088 (J)	0.00033 (J)	<0.00013	<0.00013	<0.00013	<0.00013	0.00017 (J)	0.00023 (J)	0.00021 (J)	0.00015 (J)
	Lead	<0.00013	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	0.0043 (J)	0.0046 (J)	<0.0034	<0.0034	<0.0034	0.0042 (J)	<0.0034	0.0035 (J)	<0.0034
	Mercury	<0.00013	NA	<0.00013	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	0.043	0.042	0.043	0.041
	Radium	-0.0123 U	0.0311 U	-0.0486 U	NA	0.376 U	0.334 U	0.412	NA	0.140 U	0.512 U	0.384
	Selenium	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015
	Thallium	<0.00015	<0.00015	<0.00015	NA	<0.00015	<0.00015	<0.00015	NA	<0.00015	<0.00015	<0.00015
GEOCHEMISTRY	Total Alkalinity	65	60	NA	24	NA	NA	26	170	NA	NA	170
	Bicarbonate Alkalinity	65	60	NA	24	NA	NA	26	170	NA	NA	170
	Carbonate Alkalinity	<5.0	<5.0	NA	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0
	Dissolved Iron	0.17	0.079	NA	<0.020	NA	NA	<0.020	<0.020	NA	NA	<0.020
	Magnesium	NA	5.7	NA	8.6	NA	NA	8.2	23	NA	NA	22
	Dissolved Manganese	0.27	0.046	NA	0.00096 (J)	NA	NA	<0.00087	0.41	NA	NA	0.38
	Nitrate as N	<0.023	0.029 (J)	NA	0.35	NA	NA	0.37	<0.023	NA	NA	<0.023
	Nitrite as N	0.27	0.12	NA	0.049 (J)	NA	NA	0.092	<0.029	NA	NA	0.13
	Potassium	0.92	0.88	NA	1.0	NA	NA	0.96	1.7	NA	NA	1.7
	Sodium	13	13	NA	6.2	NA	NA	6.2	14	NA	NA	14
	Sulfide	<2.1	<2.1	NA	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1

Notes:
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Macon, GA

	Substance	Well ID											
		ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-9	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-10	ARGWC-15	ARGWC-15	ARGWC-15	ARGWC-15
		6/26/2020	8/19/2020	10/1/2020	2/10/2021	6/23/2020	8/19/2020	10/1/2020	2/9/2021	6/25/2020	8/19/2020	9/29/2020	2/9/2021
APPENDIX III	Boron	<0.039	NA	0.041 (J)	0.060 (J)	0.053 (J)	NA	0.082	<0.039	<0.039	NA	<0.039	<0.039
	Calcium	5.6	NA	5.7	4.8	7.7	NA	8.1	7.7	23	NA	25	23
	Chloride	5.4	NA	5.5	5.9	4.2	NA	3.9	4.7	1.9	NA	2.5	2.7
	Fluoride	0.027 (J)	<0.026	0.041 (J)	0.051 (J)	0.040 (J)	<0.026	0.048 (J)	0.051 (J)	0.067 (J)	0.081 (J)	0.089 (J)	0.094 (J)
	Sulfate	0.94 (J)	NA	0.82 (J)	1.7	<0.38	NA	<0.38	1.3	5.6	NA	7.7	7.1
	TDS	NA	NA	55	71	NA	NA	93	81	NA	NA	130	140
	pH	5.85	7.21	5.78	5.91	5.95	7.06	5.83	5.94	6.32	6.47	7.11	6.43
APPENDIX IV	Antimony	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA
	Arsenic	NA	<0.00031	<0.00031	<0.00031	NA	<0.00031	<0.00031	<0.00031	NA	<0.00031	<0.00031	<0.00031
	Barium	NA	0.046	0.045	0.038	NA	0.034	0.032	0.031	NA	0.028	0.030	0.029
	Beryllium	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018
	Cadmium	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022
	Chromium	NA	0.0080	0.0075	0.0070	NA	0.0049	0.0047	0.0046	NA	<0.0015	<0.0015	<0.0015
	Cobalt	<0.00013	0.00013 (J)	<0.00013	<0.00013	0.00013 (J)	0.00015 (J)	<0.00013	<0.00013	0.00022 (J)	0.00040 (J)	0.00030 (J)	<0.00013
	Lead	NA	<0.00013	<0.00013	<0.00013	NA	0.00013 (J)	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013
	Lithium	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	0.0040 (J)	<0.0034	<0.0034	<0.0034
	Mercury	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	0.00086 (J)	0.0016 (J)	0.0019 (J)	0.0012 (J)
	Radium	NA	0.124 U	0.501	0.515	NA	-0.0271 U	0.172 U	0.163 U	NA	0.538	0.394 U	0.669
	Selenium	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015
	Thallium	NA	<0.00015	<0.00015	<0.00015	NA	<0.00015	<0.00015	<0.00015	NA	<0.00015	<0.00015	<0.00015
GEOCHEMISTRY	Total Alkalinity	29	NA	NA	21	48	NA	NA	51	98	NA	NA	110
	Bicarbonate Alkalinity	29	NA	NA	21	48	NA	NA	51	98	NA	NA	110
	Carbonate Alkalinity	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0
	Dissolved Iron	<0.020	NA	NA	<0.020	<0.020	NA	NA	<0.020	<0.020	NA	NA	0.11
	Magnesium	2.4	NA	NA	2.1	3.8	NA	NA	3.6	8.0	NA	NA	7.7
	Dissolved Manganese	<0.00087	NA	NA	<0.00087	<0.00087	NA	NA	<0.00087	0.0091	NA	NA	0.0035 (J)
	Nitrate as N	0.54	NA	NA	0.78	0.048 (J)	NA	NA	0.057 (J)	0.21	NA	NA	0.23
	Nitrite as N	0.031 (J)	NA	NA	0.091	<0.029	NA	NA	0.13	<0.029	NA	NA	0.14
	Potassium	1.8	NA	NA	1.8	0.73	NA	NA	0.76	7.5	NA	NA	7.2
	Sodium	6.7	NA	NA	6.5	9.7	NA	NA	9.3	9.2	NA	NA	9.0
	Sulfide	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1

Notes:
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Macon, GA

	Substance	Well ID												
		ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-16	ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-17	ARGWC-18	ARGWC-18 Dissolved	ARGWC-18	ARGWC-18 Dissolved	ARGWC-18
		6/24/2020	8/19/2020	9/29/2020	2/9/2021	6/24/2020	8/18/2020	9/29/2020	2/9/2021	6/24/2020	6/24/2020	8/20/2020	8/20/2020	9/30/2020
APPENDIX III	Boron	0.11	NA	0.081	0.076 (J)	0.059 (J)	NA	0.045 (J)	0.042 (J)	2.2	2.3	NA	NA	2.6
	Calcium	47	NA	39	38	11	NA	12	12	44	46	NA	NA	52
	Chloride	5.9	NA	5.2	5.7	4.0	NA	3.4	3.1	7.2	NA	NA	NA	6.9
	Fluoride	0.038 (J)	<0.026	0.026 (J)	0.056 (J)	<0.026	<0.026	0.029 (J)	<0.026	0.094 (J)	NA	<0.026	NA	0.082 (J)
	Sulfate	310	NA	200	190	67	NA	66	73	190	NA	NA	NA	170
	TDS	NA	NA	340	310	NA	NA	140	<200	NA	NA	NA	NA	390
	pH	5.20	5.24	5.50	5.24	5.11	5.07	5.75	5.17	5.91	5.91	6.43	6.43	5.98
APPENDIX IV	Antimony	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA	NA	NA	<0.00038	<0.00038	NA
	Arsenic	NA	<0.00031	<0.00031	<0.00031	NA	<0.00031	<0.00031	<0.00031	NA	NA	<0.00031	<0.00031	<0.00031
	Barium	NA	0.045	0.042	0.044	NA	0.062	0.056	0.051	NA	NA	0.041	0.037	0.041
	Beryllium	NA	<0.00018	<0.00018	<0.00018	NA	0.00039 (J)	0.00040 (J)	<0.00018	NA	NA	<0.00018	<0.00018	<0.00018
	Cadmium	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022	NA	NA	<0.00022	<0.00022	<0.00022
	Chromium	NA	0.0021	0.0020	0.0018 (J)	NA	<0.0015	<0.0015	<0.0015	NA	NA	<0.0015	<0.0015	<0.0015
	Cobalt	0.00013 (J)	<0.00013	<0.00013	<0.00013	0.024	0.030	0.027	0.025	0.0012 (J)	0.0011 (J)	0.0015 (J)	0.0013 (J)	0.0013 (J)
	Lead	NA	<0.00013	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013	NA	NA	0.00028 (J)	<0.00013	0.00020 (J)
	Lithium	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	0.0047 (J)	0.0053	<0.0034	<0.0034	0.0048 (J)
	Mercury	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA	NA	NA	<0.00013	<0.00013	NA
	Molybdenum	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061	0.00062 (J)	<0.00061	<0.00061	<0.00061
	Radium	NA	0.306 U	-0.0246 U	0.460	NA	0.423	0.175 U	0.332 U	NA	NA	0.191 U	NA	0.0811 U
	Selenium	NA	0.0029 (J)	0.0025 (J)	0.0019 (J)	NA	<0.0015	<0.0015	<0.0015	NA	NA	<0.0015	<0.0015	<0.0015
	Thallium	NA	0.00027 (J)	0.00025 (J)	<0.00015	NA	<0.00015	<0.00015	<0.00015	NA	NA	<0.00015	<0.00015	<0.00015
GEOCHEMISTRY	Total Alkalinity	37	NA	NA	39	12	NA	NA	30	110	NA	NA	NA	NA
	Bicarbonate Alkalinity	37	NA	NA	39	12	NA	NA	30	110	NA	NA	NA	NA
	Carbonate Alkalinity	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	NA	NA
	Dissolved Iron	<0.020	NA	NA	<0.020	0.057	NA	NA	0.075	0.86	NA	NA	NA	NA
	Magnesium	37	NA	NA	26	11	NA	NA	9.6	42	NA	NA	NA	NA
	Dissolved Manganese	0.20	NA	NA	0.28	0.50	NA	NA	0.66	0.82	NA	NA	NA	NA
	Nitrate as N	0.48	NA	NA	0.71	0.51	NA	NA	0.23	<0.023	NA	NA	NA	NA
	Nitrite as N	0.042 (J)	NA	NA	<0.029	0.045 (J)	NA	NA	0.10	0.048 (J)	NA	NA	NA	NA
	Potassium	3.8	NA	NA	3.5	1.1	NA	NA	1.1	2.2	NA	NA	NA	NA
	Sodium	16	NA	NA	15	9.2	NA	NA	7.5	12	NA	NA	NA	NA
	Sulfide	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1	<2.1	NA	NA	NA	NA

Notes:
1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. (J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
   Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
   Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * indicates well is screened within the AP-3 Landfill CCR material.

TABLE 3
ANALYTICAL DATA SUMMARY
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

	Substance	Well ID													
		ARGWC-18 Dissolved	ARGWC-18	ARAMW-3	ARAMW-3	ARAMW-3	ARAMW-3	ARAMW-4	ARAMW-4	ARAMW-4	ARAMW-4	ARAMW-6	ARAMW-6	ARAMW-6	ARAMW-6
		9/30/2020	2/10/2021	6/24/2020	8/20/2020	9/30/2020	2/10/2021	6/24/2020	8/20/2020	9/30/2020	2/10/2021	6/24/2020	8/21/2020	10/1/2020	2/9/2021
APPENDIX III	Boron	2.7	2.4	0.99	NA	1.1	0.99	0.40	NA	0.36	0.40	1.0	NA	1.1	0.85
	Calcium	53	52	33	NA	37	30	170	NA	210	220	33	NA	38	33
	Chloride	NA	7.8	5.9	NA	5.5	6.6	6.4	NA	5.0	5.1	5.4	NA	5.0	5.8
	Fluoride	NA	0.12	0.18	<0.026	0.064 (J)	0.099 (J)	0.041 (J)	<0.026	0.028 (J)	0.028 (J)	0.082 (J)	0.051 (J)	0.071 (J)	0.083 (J)
	Sulfate	NA	220	45	NA	49	60	860	NA	790	1000	58	NA	58	59
	TDS	NA	460	NA	NA	240	230	NA	NA	1300	1500	NA	NA	220	220
	pH	5.98	5.99	6.38	6.24	6.41	6.15	5.78	5.77	5.94	5.64	6.33	6.32	6.37	6.34
APPENDIX IV	Antimony	NA	NA	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA	NA	<0.00038	NA	NA
	Arsenic	<0.00031	<0.00031	NA	<0.00031	<0.00031	<0.00031	NA	0.00034 (J)	0.00039 (J)	<0.00031	NA	<0.00031	<0.00031	<0.00031
	Barium	0.037	0.038	NA	0.093	0.094	0.066	NA	0.053	0.053	0.042	NA	0.049	0.044	0.041
	Beryllium	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018	NA	<0.00018	<0.00018	<0.00018
	Cadmium	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022	NA	<0.00022	<0.00022	<0.00022
	Chromium	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015
	Cobalt	0.0012 (J)	0.0011 (J)	0.00053 (J)	0.00056 (J)	0.0011 (J)	0.00055 (J)	0.0049	0.0050	0.0046	0.0053	0.0049	0.0018 (J)	0.0018 (J)	0.00047 (J)
	Lead	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013	NA	<0.00013	<0.00013	<0.00013
	Lithium	0.0046 (J)	0.0041 (J)	0.0046 (J)	<0.0034	0.0055	0.0046 (J)	0.013	0.012	0.012	0.014	<0.0034	<0.0034	<0.0034	<0.0034
	Mercury	NA	NA	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA	NA	<0.00013	NA	NA
	Molybdenum	<0.00061	<0.00061	0.0077 (J)	0.0029 (J)	0.0061 (J)	0.00065 (J)	0.00079 (J)	<0.00061	0.00073 (J)	<0.00061	<0.00061	<0.00061	<0.00061	<0.00061
	Radium	NA	0.568	NA	-0.137 U	0.539 U	0.830	NA	0.624 U	0.532	0.932	NA	0.285 U	0.0114 U	0.180 U
	Selenium	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015	NA	<0.0015	<0.0015	<0.0015
	Thallium	<0.00015	<0.00015	NA	<0.00015	<0.00015	<0.00015	NA	0.00022 (J)	<0.00015	<0.00015	NA	0.00018 (J)	<0.00015	<0.00015
GEOCHEMISTRY	Total Alkalinity	NA	120	140	NA	NA	100	64	NA	NA	57	120	NA	NA	120
	Bicarbonate Alkalinity	NA	120	140	NA	NA	100	64	NA	NA	57	120	NA	NA	120
	Carbonate Alkalinity	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0
	Dissolved Iron	NA	1.3	6.3	NA	NA	1.5	7.5	NA	NA	4.3	1.0	NA	NA	0.082
	Magnesium	NA	42	17	NA	NA	15	97	NA	NA	110	19	NA	NA	16
	Dissolved Manganese	NA	0.92	1.2	NA	NA	0.21	2.3	NA	NA	1.1	0.23	NA	NA	0.018
	Nitrate as N	NA	<0.023	<0.023	NA	NA	<0.023	<0.023	NA	NA	<0.023	0.023 (J)	NA	NA	0.076 (J)
	Nitrite as N	NA	0.099	<0.029	NA	NA	0.13	<0.029	NA	NA	0.029 (J)	<0.029	NA	NA	0.13
	Potassium	NA	2.3	5.2	NA	NA	3.2	12	NA	NA	11	1.3	NA	NA	1.3
	Sodium	NA	13	15	NA	NA	13	28	NA	NA	28	12	NA	NA	11
	Sulfide	NA	<2.1	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1	<2.1	NA	NA	<2.1

Notes:
1. Results for constituents are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. (J) indicates the substance was detected at such low levels that the precision of the laboratory instrument could not produce a reliable value.
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
4. TDS indicates total dissolved solids.
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value.
Therefore, the value followed by U is qualified by the laboratory as estimated.
6. NA indicates constituent was not analyzed
7. * indicates well is screened within the AP-3 Landfill CCR material.

TABLE 4
SUMMARY OF HYDRAULIC CONDUCTIVITY TESTING RESULTS
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Well Name	**ARAMW-4**	**ARAMW-4**	**ARGWA-12**	**ARGWA-12**	**ARGWA-13**	**ARGWA-13**	**ARGWC-17**	**ARGWC-17**	**ARGWC-18**	**ARGWC-18**	**ARGWA-24**	**ARGWA-24**
Screen Zone Material	Bedrock: Fractured Gneiss		Bedrock: Fractured Biotite Gneiss		Bedrock: Fractured Biotite Gneiss		Overburden: Silty Sand to Sandy Silt		Overburden: Sandy Clay to Silty Clay		Overburden: Silty Sand	
Test Type	*Slug In*	*Slug Out*	*Slug In*	*Slug Out*	*Slug In*	*Slug Out*	*Slug In*	*Slug Out*	*Slug In*	*Slug Out*	*Slug In*	*Slug Out*
Hydraulic Conductivity (K) (ft/day)	2.398	2.15	0.4849	0.5622	0.5899	0.6804	3.000	3.523	0.4659	0.4571	16.84	16.04
Average K (ft/day)	2.27		0.52		0.64		3.26		0.46		16.44	
Hydraulic Conductivity (K) (cm/sec)	8.46E-04	7.58E-04	1.71E-04	1.98E-04	2.08E-04	2.40E-04	1.06E-03	1.24E-03	1.64E-04	1.61E-04	5.94E-03	5.66E-03
Average K (cm/sec)	8.02E-04		1.85E-04		2.24E-04		1.15E-03		1.63E-04		5.80E-03	

Minimum/Maximum/Mean	**Minimum (ft/day)**	**Maximum (ft/day)**	**Geometric Mean (ft/day)**	**Minimum (cm/sec)**	**Maximum (cm/sec)**	**Geometric Mean (cm/sec)**
Bedrock Hydraulic Conductivity	0.52	2.27	0.91	1.85E-04	8.02E-04	3.21E-04
Overburden Hydraulic Conductivity	0.46	16.44	2.91	1.63E-04	5.80E-03	1.03E-03

Notes:

K Horizontal hydraulic conductivity
K values obtained from a single well slug testing represent the aquifer characteristics in the near vicinity of the well.
These methods assume a homogenous aquifer and are sensitive to well bore effects and well inefficiencies.

ft/day Feet per Day

cm/sec Centimeter per Second

TABLE 5
SUMMARY OF INDIVIDUAL WELL/ANALYTE TREND RESULTS
Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, GA

Summary Results											Non Parametric Mann-Kendal Slope Test			Linear Regression Slope Test			
Location	Parameter	Minimum	Maximum	Mean	Median	Standard Deviation	Hits Count	BDLs Count	Percent BDLs	Total Samples Count	MK score	p of non-zero MK score	Sen's Slope	Slope	p of non-zero slope	r-square	Trend
ARAMW-3	Cobalt	0.00053	0.0011	0.000685	0.000555	0.000277	4	0	0.0%	4	2	0.734	1.83E-05	2.96E-05	0.971	<0.001	None
ARAMW-4	Cobalt	0.0042	0.0064	0.005066667	0.00495	0.000753	6	0	0.0%	6	1	1.000	1.00E-04	-3.17E-04	0.748	<0.001	None
ARAMW-6	Cobalt	0.00047	0.0049	0.0022425	0.0018	0.001879	4	0	0.0%	4	-5	0.149	-0.001403333	-6.10E-03	0.134	0.626	None
ARGWA-12	Cobalt	7.50E-05	0.01	0.001822813	0.0015	0.002464	5	11	68.8%	16	-75	0.000	-0.000211364	-1.13E-03	0.002	0.478	Decreasing
ARGWA-13	Cobalt	0.00011	0.01	0.001903333	0.0025	0.00253	2	13	86.7%	15	-62	0.001	-0.000237	-1.13E-03	0.003	0.471	Decreasing
ARGWA-14	Cobalt	7.50E-05	0.01	0.001809063	0.0015	0.002474	1	15	93.8%	16	-73	0.001	-0.000215455	-1.14E-03	0.002	0.483	Decreasing
ARGWA-24	Cobalt	0.00033	0.0058	0.002336667	0.00088	0.003012	3	0	0.0%	3	-3	1.000	-0.002735	-1.76E-02	0.207	0.796	None
ARGWA-3	Cobalt	7.50E-05	0.01	0.001812188	0.0015	0.002471	2	14	87.5%	16	-71	0.001	-0.000215455	-1.13E-03	0.002	0.481	Decreasing
ARGWA-5	Cobalt	7.50E-05	0.01	0.001803438	0.0015	0.002477	2	14	87.5%	16	-67	0.002	-0.000215455	-1.14E-03	0.002	0.483	Decreasing
ARGWC-10	Cobalt	0.00013	0.01	0.001902	0.0025	0.00253	4	11	73.3%	15	-70	0.000	-0.000237	-1.13E-03	0.003	0.471	Decreasing
ARGWC-15	Cobalt	0.00013	0.03	0.003412941	0.00048	0.007342	12	5	29.4%	17	-89	0.000	-0.000240722	-2.40E-03	0.032	0.223	Decreasing
ARGWC-16	Cobalt	0.00013	0.01	0.001904667	0.0025	0.002529	3	12	80.0%	15	-70	0.000	-0.000237	-1.13E-03	0.003	0.471	Decreasing
ARGWC-17	Cobalt	0.014	0.037	0.022626667	0.022	0.006341	15	0	0.0%	15	1	1.000	0	-3.06E-04	0.784	<0.001	None
ARGWC-18	Cobalt	0.00091	0.0021	0.001328095	0.0013	0.000301	21	0	0.0%	21	-66	0.047	-1.91E-05	-1.06E-04	0.007	0.292	Decreasing
ARGWC-7	Cobalt	8.60E-05	0.01	0.00180725	0.00142	0.002474	3	13	81.3%	16	-72	0.001	-0.000215455	-1.14E-03	0.002	0.483	Decreasing
ARGWC-8	Cobalt	0.00013	0.01	0.00182625	0.001455	0.00246	8	8	50.0%	16	-76	0.000	-0.000214545	-1.13E-03	0.002	0.477	Decreasing
ARGWC-9	Cobalt	7.50E-05	0.01	0.001916333	0.0025	0.002521	2	13	86.7%	15	-64	0.001	-0.000237	-1.12E-03	0.003	0.467	Decreasing
ARAMW-3	Lithium	0.0034	0.0055	0.004525	0.0046	0.000862	3	1	25.0%	4	1	1.000	0.000225	6.15E-04	0.808	<0.001	None
ARAMW-4	Lithium	0.012	0.014	0.01275	0.0125	0.000957	4	0	0.0%	4	1	1.000	0.000166667	2.18E-03	0.389	0.061	None
ARAMW-6	Lithium	0.0034	0.0034	0.0034	0.0034	0	0	4	100.0%	4	0	1.000	0	0.00E+00	1.000	1.000	None
ARGWA-12	Lithium	0.0036	0.05	0.00806	0.0051	0.011664	14	1	6.7%	15	-2	0.960	-7.14E-06	-2.47E-03	0.216	0.047	None
ARGWA-13	Lithium	0.0032	0.0099	0.00534	0.0053	0.001595	15	0	0.0%	15	23	0.275	1.00E-04	2.60E-04	0.347	<0.001	None
ARGWA-14	Lithium	0.0034	0.05	0.00765	0.005	0.011355	9	7	43.8%	16	-32	0.158	-1.00E-04	-2.72E-03	0.154	0.078	None
ARGWA-24	Lithium	0.0034	0.0043	0.0037	0.0034	0.00052	1	2	66.7%	3	2	1.000	0.00045	2.58E-03	0.401	0.305	None
ARGWA-3	Lithium	0.0017	0.05	0.006852941	0.0047	0.011161	3	14	82.4%	17	-73	0.002	-0.000123077	-2.98E-03	0.105	0.110	None
ARGWA-5	Lithium	0.0034	0.05	0.007141176	0.005	0.011076	2	15	88.2%	17	-52	0.022	-0.000118681	-2.96E-03	0.105	0.110	None
ARGWC-10	Lithium	0.0011	0.05	0.00678125	0.0042	0.011597	3	13	81.3%	16	-40	0.062	-0.000133333	-2.91E-03	0.134	0.093	None
ARGWC-15	Lithium	0.0025	0.005	0.003972222	0.004	0.00089	7	11	61.1%	18	-21	0.432	0	-1.08E-04	0.450	<0.001	None
ARGWC-16	Lithium	0.0016	0.05	0.00704375	0.0042	0.011534	3	13	81.3%	16	-40	0.062	-0.000133333	-2.89E-03	0.135	0.092	None
ARGWC-17	Lithium	0.0014	0.05	0.00695	0.0042	0.011559	3	13	81.3%	16	-40	0.062	-0.000133333	-2.89E-03	0.136	0.091	None
ARGWC-18	Lithium	0.0033	0.013	0.00462	0.004	0.002125	17	3	15.0%	20	31	0.327	3.04E-05	2.18E-04	0.472	<0.001	None
ARGWC-7	Lithium	0.0024	0.0083	0.004206667	0.0034	0.001471	8	7	46.7%	15	-7	0.757	0	-5.91E-05	0.820	<0.001	None
ARGWC-8	Lithium	0.0025	0.0077	0.0041125	0.0038	0.001179	9	7	43.8%	16	-13	0.583	-8.39E-06	2.14E-05	0.917	<0.001	None
ARGWC-9	Lithium	0.0034	0.05	0.00728125	0.005	0.011426	1	15	93.8%	16	-55	0.007	-0.000133333	-2.97E-03	0.120	0.104	None

TABLE 5
SUMMARY OF INDIVIDUAL WELL/ANALYTE TREND RESULTS
Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, GA

Summary Results											Non Parametric Mann-Kendal Slope Test			Linear Regression Slope Test			
Location	Parameter	Minimum	Maximum	Mean	Median	Standard Deviation	Hits Count	BDLs Count	Percent BDLs	Total Samples Count	MK score	p of non-zero MK score	Sen's Slope	Slope	p of non-zero slope	r-square	Trend
ARAMW-3	Molybdenum	0.00065	0.0077	0.004658333	0.0053	0.002502	6	0	0.0%	6	-4	0.566	-8.00E-04	-3.40E-03	0.238	0.155	None
ARAMW-4	Molybdenum	0.00061	0.00079	0.000685	0.00067	9.00E-05	2	2	50.0%	4	-3	0.470	-4.50E-05	-2.17E-04	0.352	0.130	None
ARAMW-6	Molybdenum	0.00061	0.00065	0.000618	0.00061	1.79E-05	1	4	80.0%	5	-4	0.289	0	-3.69E-05	0.099	0.533	None
ARGWA-12	Molybdenum	0.00061	0.015	0.007604118	0.005	0.006822	0	17	100.0%	17	-75	0.001	-0.001035595	-3.97E-03	0.000	0.773	Decreasing
ARGWA-13	Molybdenum	0.00061	0.015	0.006827647	0.005	0.006677	1	16	94.1%	17	-75	0.001	-0.000904233	-3.57E-03	0.000	0.641	Decreasing
ARGWA-14	Molybdenum	0.00061	0.015	0.007332667	0.004	0.006898	5	10	66.7%	15	-57	0.004	-0.00037	-3.28E-03	0.001	0.546	Decreasing
ARGWA-24	Molybdenum	0.00061	0.00061	0.00061	0.00061	0	0	3	100.0%	3	0	1.000	0	-6.10E-19	0.265	<0.001	None
ARGWA-3	Molybdenum	0.00061	0.015	0.006776471	0.005	0.006721	1	16	94.1%	17	-75	0.001	-0.000904233	-3.54E-03	0.000	0.621	Decreasing
ARGWA-5	Molybdenum	0.00061	0.015	0.007604118	0.005	0.006822	0	17	100.0%	17	-75	0.001	-0.001035595	-3.97E-03	0.000	0.773	Decreasing
ARGWC-10	Molybdenum	0.00061	0.015	0.007604118	0.005	0.006822	0	17	100.0%	17	-75	0.001	-0.001035595	-3.97E-03	0.000	0.773	Decreasing
ARGWC-15	Molybdenum	0.00075	0.015	0.006334118	0.0017	0.006424	10	7	41.2%	17	-40	0.103	-0.000205	-2.71E-03	0.003	0.415	Decreasing
ARGWC-16	Molybdenum	0.00061	0.015	0.007604118	0.005	0.006822	0	17	100.0%	17	-75	0.001	-0.001035595	-3.97E-03	0.000	0.774	Decreasing
ARGWC-17	Molybdenum	0.00061	0.015	0.007604118	0.005	0.006822	0	17	100.0%	17	-75	0.001	-0.001035595	-3.97E-03	0.000	0.773	Decreasing
ARGWC-18	Molybdenum	0.00061	0.015	0.007095909	0.005	0.006712	1	21	95.5%	22	-125	0.000	-0.000685238	-3.75E-03	0.000	0.788	Decreasing
ARGWC-7	Molybdenum	0.00061	0.015	0.007604118	0.005	0.006822	0	17	100.0%	17	-75	0.001	-0.001035595	-3.97E-03	0.000	0.773	Decreasing
ARGWC-8	Molybdenum	0.00061	0.051	0.037956875	0.0395	0.010976	15	1	6.3%	16	40	0.079	0.000426068	7.37E-04	0.699	<0.001	None
ARGWC-9	Molybdenum	0.00061	0.015	0.00804125	0.0075	0.006795	0	16	100.0%	16	-67	0.001	-0.001102212	-3.88E-03	0.000	0.779	Decreasing

Trend Analysis Results	Number	Percent
Analyte/Well Pairs	51	--
No Trend	27	53%
Significant Increasing	0	0%
Significant Decreasing	24	47%

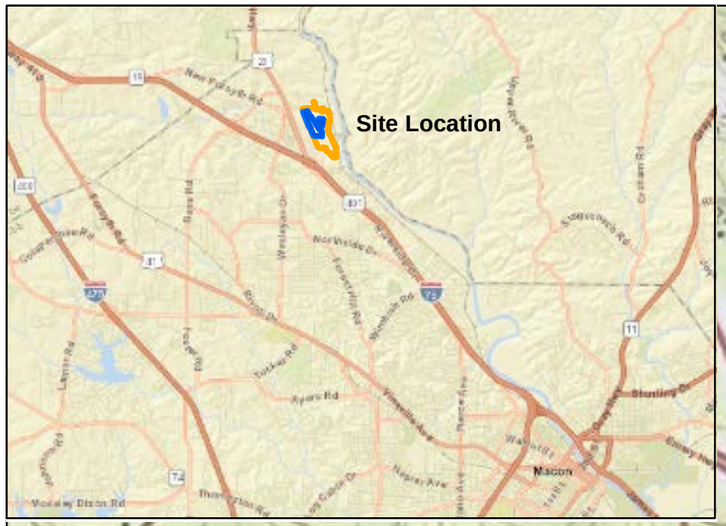
Notes:
- BDL: Below Detectible Limits
- MK: Mann-Kendall

TABLE 6
PROPOSED ACM SUPPLEMENTARY DATA ANALYSES AND COLLECTION TASKS
FOR SECOND SEMI-ANNUAL PERIOD 2021
Plant Arkwright
Ash Pond 3 Landfill and Monofill
Macon, GA

Data Collection Event	Applicable CMs (1)	Applicability/Rationale	Field Component	Parameters of Interest (POI)	Analytical Lab Performing Analysis
Groundwater Sampling	1, 3, 4	Evaluation of: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) in-situ conditions to establish phytoremediation measures downgradient of the unit	Collect groundwater samples from existing well network currently sampled under the assessment monitoring program	In addition to routine App III/IV parameters: major cations (i.e., calcium, magnesium, sodium, and potassium) and anions (i.e., chloride, nitrate, nitrite, sulfate, and bicarbonate), sulfide, iron, manganese.	TestAmerica Laboratories, Inc. (Eurofins) of Pittsburgh, Pennsylvania
Aquifer Matrix Material Sampling, Sequential Extraction Process, and Soil Characterization	1, 3, 4	Evaluation of aquifer matrix for: (i) Attenuation mechanisms and rates, and aquifer capacity for attenuation; and (ii) mineralogical characterization (iii) grain size analysis	Collect unconsolidated aquifer solid material from the overburden and/or weathered and fractured rock using a drilling rig (2 upgradient and 2 downgradient locations). Anticipate aquifer matrix samples collected and submitted to the lab in July-August 2021.	Total sulfur, sulfide; organic carbon content; total concentrations of Cobalt, Lithium, Molybdenum, Iron, Aluminum, Magnesium, Manganese. X-Ray Diffraction, Scanning Electron Microscopy (SEM) and energy dispersive x-ray analysis (EDXA); cation/anion exchange capacity; and sequential extraction of Cobalt, Lithium, and Molybdenum.	SiREM and subcontracted labs
Determine Ionic Speciation of Constituents	1 and 3	Evaluate field parameters (pH, ORP, temperature) to determine plausible ionic speciation of the constituents, and evaluation ionic strength to guide assessment of adsorption potential.	Not Applicable (Desktop Study)	Mechanism and rate of attenuation	No lab data required

Note:
(1) Corrective Measure (CM) Codes:
1 – Geochemical Manipulation (In-Situ Injection)
2 – Hydraulic Containment and Dewatering (Pump and Treat)
3 – Monitored Natural Attenuation (MNA)
4 – Phytoremediation (TreeWells®)

FIGURES



N

Pumping Sta
WT
Arkwright
Power Plant
INTERCHANGE 56
INTERCHANGE 55
BR 369
Substa
Sewage Disposal Pond
SHERATON
DRIVE
BM 338
BM 321
407
399
428
505
457
503
542

Legend

- Ash Pond 3 Landfill and Monofill
- Ash Pond 2 Dry Ash Stockpile
- Approximate Property Boundary

0 750 1,500 3,000 Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China

Plant Arkwright Ash Pond 3 Landfill and Monfill
Macon, Georgia

Semi-Annual Remedy Selection and Design Progress Report

Site Location Map

Prepared By-Date: NJM - 7/6/2021	wood.	**Figure: 1**
Checked By-Date: RQ - 7/6/2021		
Project Number: 6122201429		

N

ARGWA-12
ARGWA-24
ARGWA-5
ARGWA-3
AP3PZ-1A
AP3PZ-2A
ARGWA-14
ARGWA-13
Ash Pond 3
Ash Monofill
AP3PZ-3A
ARAMW-4
ARGWC-15
ARGWC-10
ARGWC-17
ARGWC-16
ARGWC-9
AP3PZ-4A
AP3PZ-5A
ARAMW-3
ARGWC-8
ARGWC-18
ARGWC-7
ARAMW-6

0 150 300 600 Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Groundwater Monitoring Network Well
- Piezometer Screened in CC Material
- Delineation Piezometer
- Approximate Limits of Waste
- Approximate Property Boundary

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

Semi-Annual Remedy Selection and Design Progress Report

Monitoring Network Well Location Map

Prepared By-Date: NJM - 7/28/2021	
Checked By-Date: RQ - 7/28/2021	
Project Number: 6122201429	wood.

Figure: 2

N

NICHOLAS JARRAD MCMILLAN
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 2308

ARGWA-12
357.94

ARGWA-5
353.32

ARGWA-3
353.67

ARGWA-24
353.71

355

355

350

Ash Pond 3

ARGWA-13
347.84

ARGWA-14
343.51

345

345

Ash Monofill

ARAMW-4
346.50*

ARGWC-17
346.58

ARGWC-15
346.72

ARGWC-10
350.16

350

ARGWC-16
344.77

345

ARGWC-9
347.24

345

340

340

335

335

ARAMW-3
330.84*

ARGWC-8
330.41

ARGWC-18
327.18

ARGWC-7
329.69

330

330

325

325

ARAMW-6
324.57

Notes:
* - Groundwater elevation was not used in contouring.
- Groundwater elevations calculated using top of casing measurements collected during the June 2020 site survey.

Legend

- 324.57 Groundwater Elevation (ft NAVD88)
- Groundwater Elevation Contour (ft NAVD88)
- Interpreted Groundwater Flow Direction
- Groundwater Elevation Location
- Approximate Limits of Waste
- Approximate Property Boundary

0 125 250 500 Feet

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

Semi-Annual Remedy Selection and Design Progress Report

Potentiometric Surface - February 2021

Prepared By-Date: NJM - 7/28/2021	
Checked By-Date: RQ - 7/28/2021	
Project Number: 6122201429	

wood.

Figure: 3

Notes:

Cobalt concentrations data from groundwater samples collected during the February 2021 monitoring event.

J indicates the constituent was detected between the analytical method detection limit and the laboratory reporting limit. The value followed by J is qualified by the laboratory as estimated.

* ARAMW-3 and ARAMW-4 are vertical delineation piezometers and concentrations were not used in contouring.

Cobalt concentrations are reported in mg/L.

Analyte	Units	GWPS
Cobalt	mg/L	0.0058

N

ARGWA-12
<0.00013

ARGWA-5
<0.00013

ARGWA-3
<0.00013

ARGWA-24
0.00088 J

355

350

345

340

335

330

325

Ash Pond 3

Ash Monofill

ARGWA-13
<0.00013

ARGWA-14
<0.00013

ARAMW-4
0.0053*

ARGWC-15
<0.00013

ARGWC-17
0.025

0.0058

ARGWC-16
<0.00013

ARGWC-10
<0.00013

ARGWC-9
<0.00013

ARAMW-3
0.00055 J*

ARGWC-8
0.00015 J

ARGWC-18
0.0011 J

ARAMW-6
0.00047 J

ARGWC-7
<0.00013

Legend

- 0.025 — Cobalt Concentration (mg/L)
- Groundwater Quality Monitoring Well in Monitoring Well Network
- Cobalt Concentration Contour (mg/L)
- Interpreted Groundwater Flow Direction
- Groundwater Elevation Contour February 2021 (ft NAVD88)
- Approximate Limits of Waste
- Approximate Property Boundary

0 125 250 500 Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

Semi-Annual Remedy Selection and Design Progress Report

Isoconcentration Map for Cobalt February 2021

Prepared By-Date: NJM - 7/28/2021	wood.	Figure: 4
Checked By-Date: RQ - 7/28/2021		
Project Number: 6122201429		

Notes:

Molybdenum concentrations data from groundwater samples collected during the February 2021 monitoring event.

J indicates the constituent was detected between the analytical method detection limit and the laboratory reporting limit. The value followed by J is qualified by the laboratory as estimated.

* ARAMW-3 and ARAMW-4 are vertical delineation piezometers and concentrations were not used in contouring.

Molybdenum concentrations are reported in mg/L.

Analyte	Units	GWPS
Molybdenum	mg/L	0.015

N

ARGWA-12 <0.00061

ARGWA-5 <0.00061

ARGWA-3 <0.00061

ARGWA-24 <0.00061

355

350

345

340

335

330

325

Ash Pond 3

Ash Monofill

ARGWA-13 <0.00061

ARGWA-14 <0.00061

ARGWC-10 <0.00061

ARAMW-4 <0.00061

ARGWC-15 0.0012 J

ARGWC-17 <0.00061

ARGWC-9 <0.00061

ARGWC-16 <0.00061

0.015

ARAMW-3 0.00065 J

ARGWC-8 0.041

ARAMW-6 <0.00061

ARGWC-18 <0.00061

ARGWC-7 <0.00061

Legend

- 0.041 Molybdenum Concentration (mg/L)
- Groundwater Quality Monitoring Well in Monitoring Well Network
- Molybdenum Concentration Contour (mg/L)
- Inferred Molybdenum Concentration Contour (mg/L)
- Interpreted Groundwater Flow Direction
- Groundwater Elevation Contour February 2021 (ft NAVD88)
- Approximate Limits of Waste
- Approximate Property Boundary

0 125 250 500 Feet

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

Semi-Annual Remedy Selection and Design Progress Report

Isoconcentration Map for Molybdenum February 2021

Prepared By-Date: NJM - 7/28/2021	
Checked By-Date: RQ - 7/28/2021	
Project Number: 6122201429	wood.

Figure: 5

Notes:

Lithium concentrations data from groundwater samples collected during the February 2021 monitoring event.

J indicates the constituent was detected between the analytical method detection limit and the laboratory reporting limit. The value followed by J is qualified by the laboratory as estimated.

* ARAMW-3 and ARAMW-4 are vertical delineation piezometers and concentrations were not used in contouring.

Lithium concentrations are reported in mg/L.

Analyte	Units	GWPS
Lithium	mg/L	0.0099

N

ARGWA-12
0.0051

ARGWA-5
<0.0034

ARGWA-3
<0.0034

ARGWA-24
<0.0034

ARGWA-13
0.0054

ARGWA-14
<0.0034

ARAMW-4
0.014*

ARGWC-15
<0.0034

ARGWC-17
<0.0034

ARGWC-16
<0.0034

ARGWC-10
<0.0034

ARGWC-9
<0.0034

ARAMW-3
0.0046 J*

ARGWC-8
<0.0034

ARGWC-18
0.0041 J

ARAMW-6
<0.0034

ARGWC-7
<0.0034

Ash Pond 3

Ash Monofill

355 355 350 345 345 340 340 335 335 330 325

Legend

- 0.014 — Lithium Concentration (mg/L)
- Groundwater Quality Monitoring Well in Monitoring Well Network
- Interpreted Groundwater Flow Direction
- Groundwater Elevation Contour February 2021 (ft NAVD88)
- Approximate Limits of Waste
- Approximate Property Boundary

0 125 250 500 Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Plant Arkwright Ash Pond 3 Landfill and Monofill
Macon, Georgia

Semi-Annual Remedy Selection and Design Progress Report

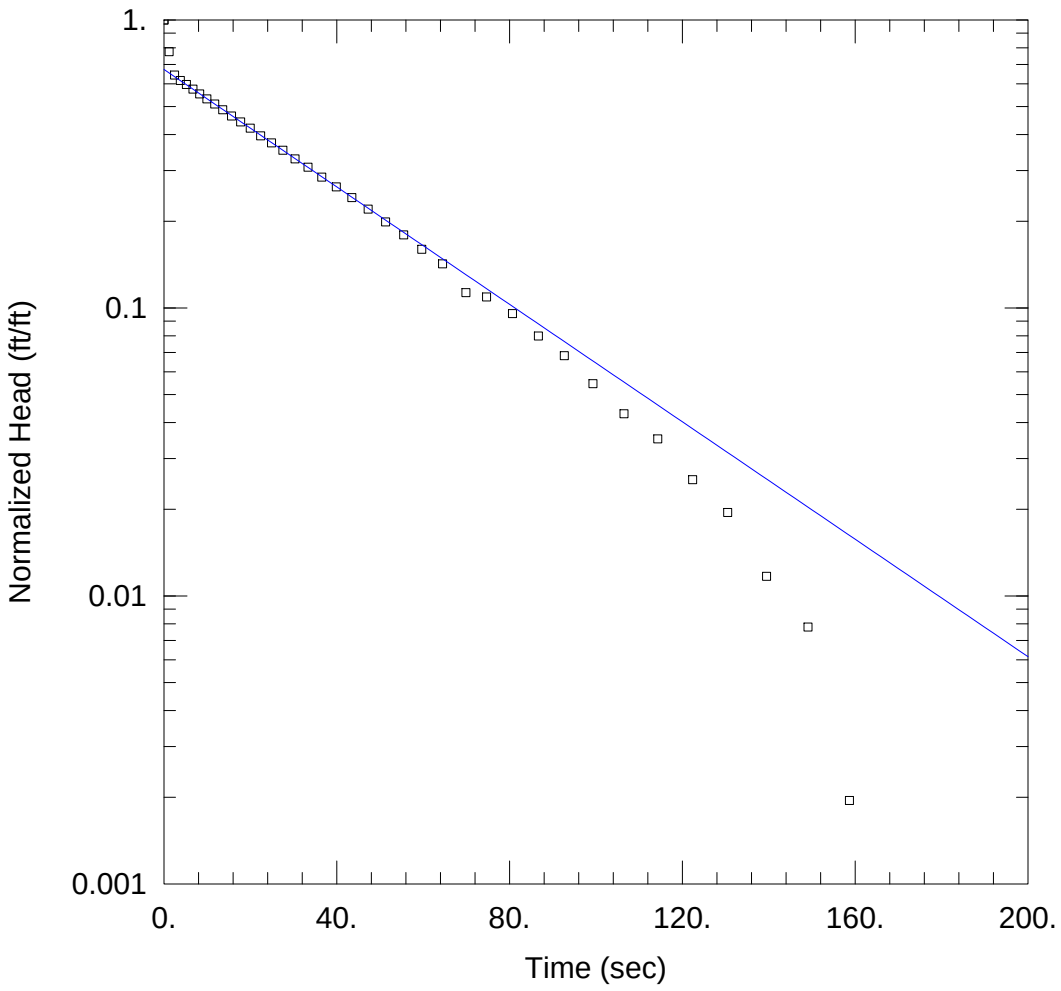
Isoconcentration Map for Lithium February 2021

Prepared By-Date: NJM - 7/28/2021	
Checked By-Date: RQ - 7/28/2021	
Project Number: 6122201429	wood.

Figure: 6

APPENDIX A

AQTESOLV DATA PLOTS



SLUG IN

Data Set: P:\...\ARAMW-4_Slug In.aqt
Date: 05/27/21 Time: 18:27:32

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARAMW-4
Test Date: 3-31-2021

AQUIFER DATA

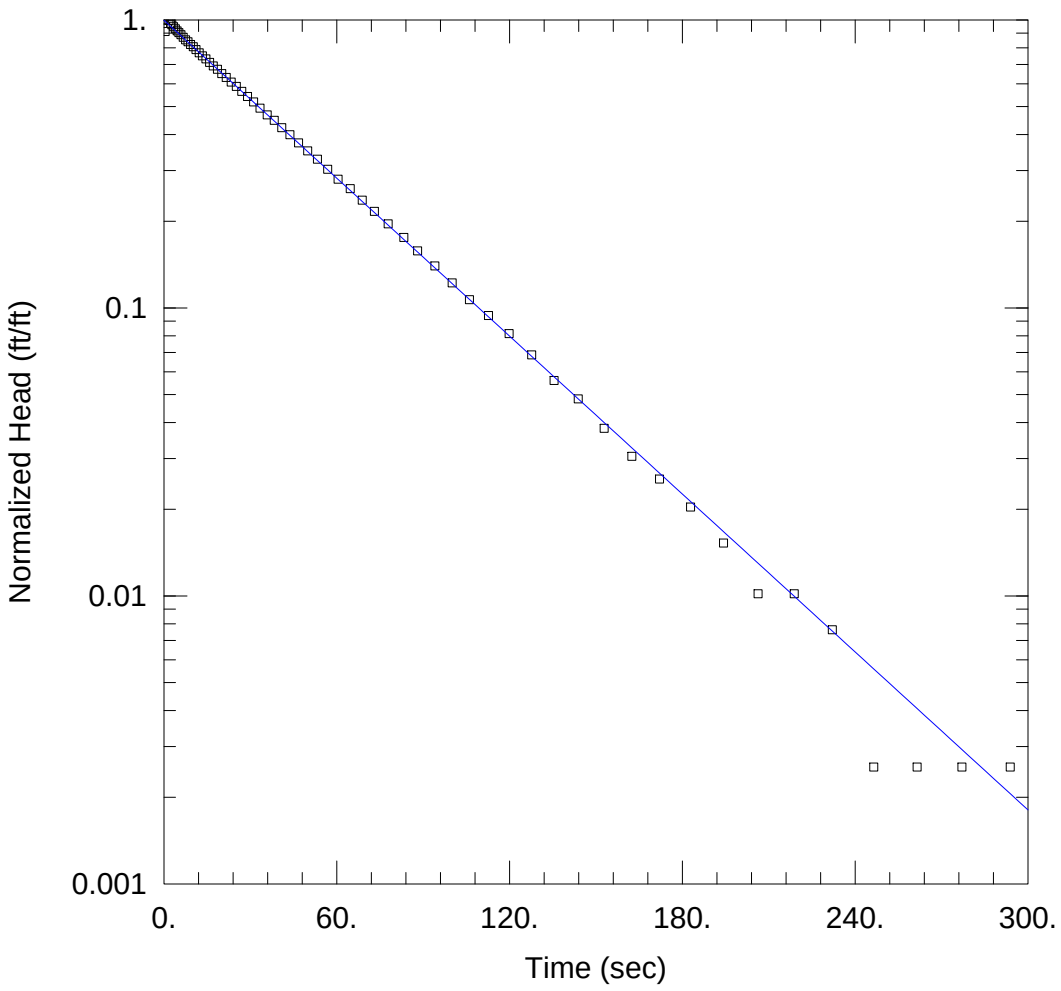
Saturated Thickness: 36.89 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (ARAMW-4)

Initial Displacement: 5.13 ft
Total Well Penetration Depth: 36.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 36.75 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.398 ft/day
y0 = 3.451 ft



SLUG OUT

Data Set: P:\...\ARAMW-4_Slug Out.aqt
Date: 05/27/21 Time: 18:28:00

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARAMW-4
Test Date: 3-31-2021

AQUIFER DATA

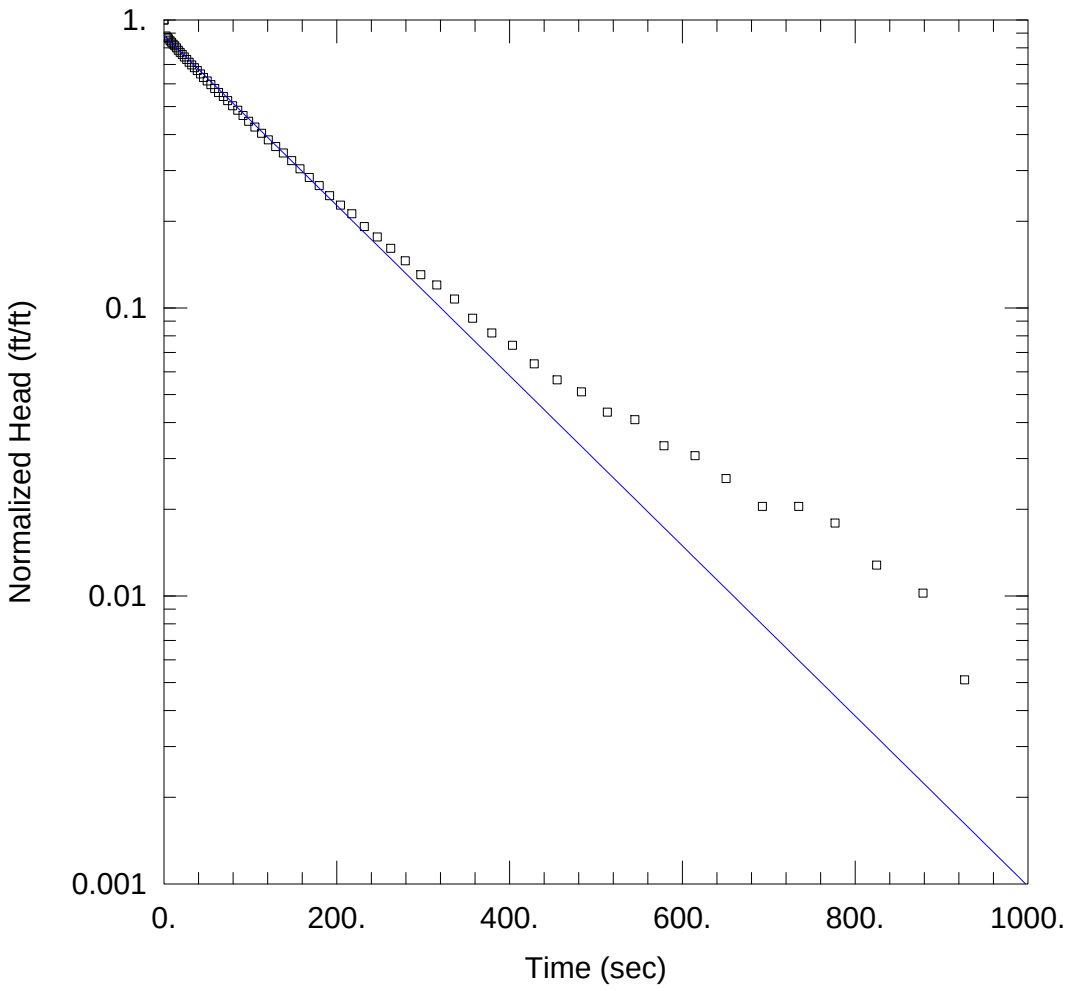
Saturated Thickness: 36.89 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (ARAMW-4)

Initial Displacement: 3.93 ft
Total Well Penetration Depth: 36.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 36.75 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.15 ft/day
y0 = 3.919 ft



SLUG IN

Data Set: P:\...\ARGWA-12_Slug In.aqt
Date: 05/27/21 Time: 18:30:08

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWA-12
Test Date: 3-31-2021

AQUIFER DATA

Saturated Thickness: 21.56 ft Anisotropy Ratio (Kz/Kr): 1.

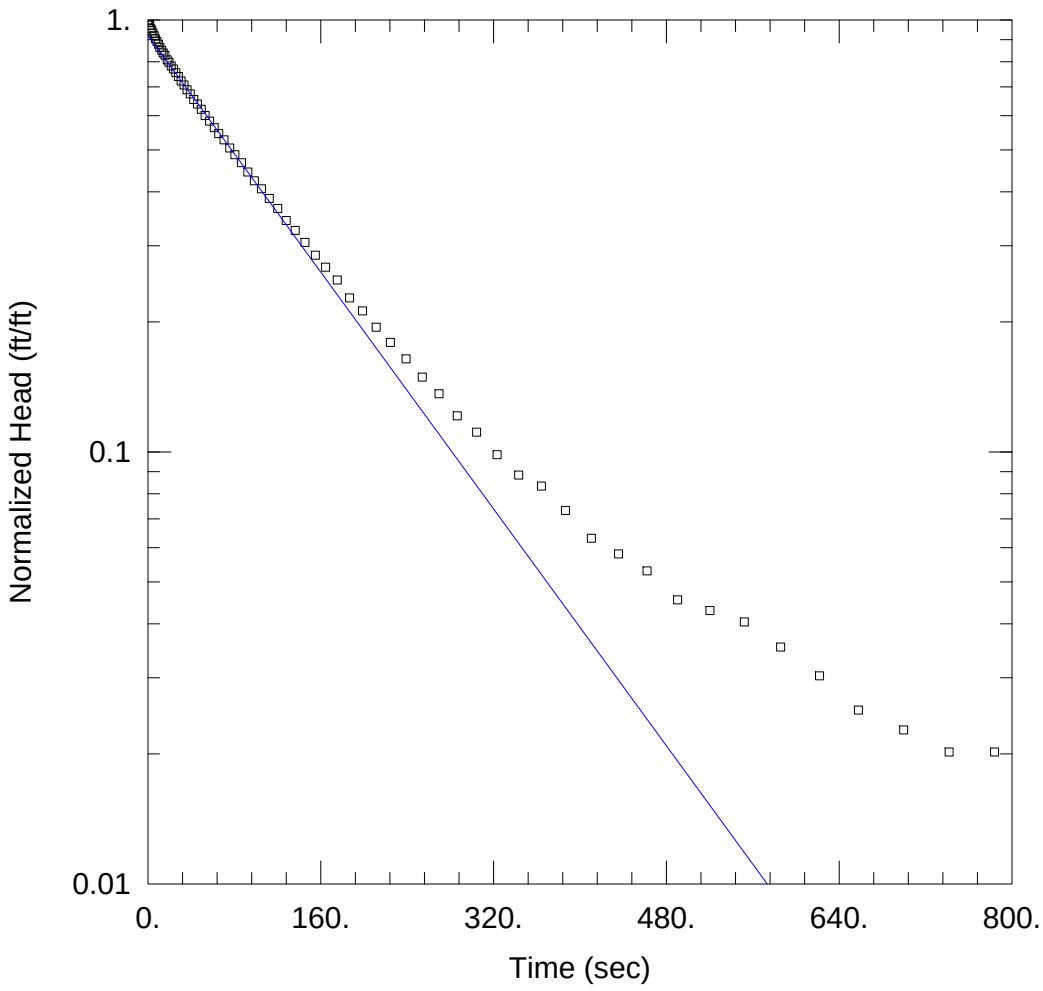
WELL DATA (ARGWA-12)

Initial Displacement: 3.911 ft Static Water Column Height: 18.02 ft
Total Well Penetration Depth: 21.26 ft Screen Length: 12. ft
Casing Radius: 0.083 ft Well Radius: 0.375 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.4849 ft/day y0 = 3.458 ft



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Data Set: P:\...\ARGWA-12_Slug Out.aqt
Date: 07/27/21 Time: 17:03:05

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWA-12
Test Date: 3-31-2021

AQUIFER DATA

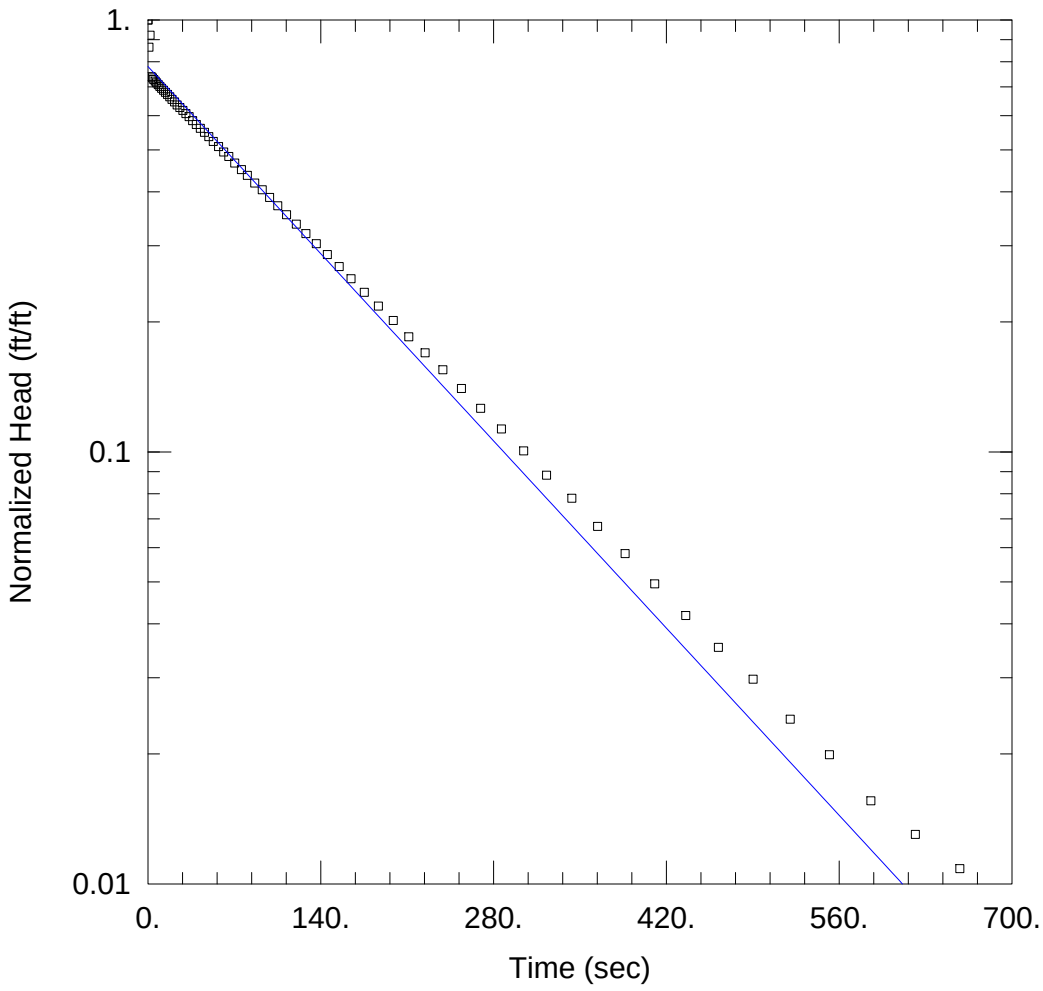
Saturated Thickness: 21.56 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (ARGWA-12)

Initial Displacement: 3.96 ft
Total Well Penetration Depth: 21.26 ft
Casing Radius: 0.083 ft
Static Water Column Height: 21.56 ft
Screen Length: 12. ft
Well Radius: 0.375 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.5622 ft/day
y0 = 3.646 ft



SLUG IN

Data Set: P:\...\ARGWA-13_Slug In.aqt
Date: 05/27/21 Time: 18:31:21

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWA-13
Test Date: 3-31-2021

AQUIFER DATA

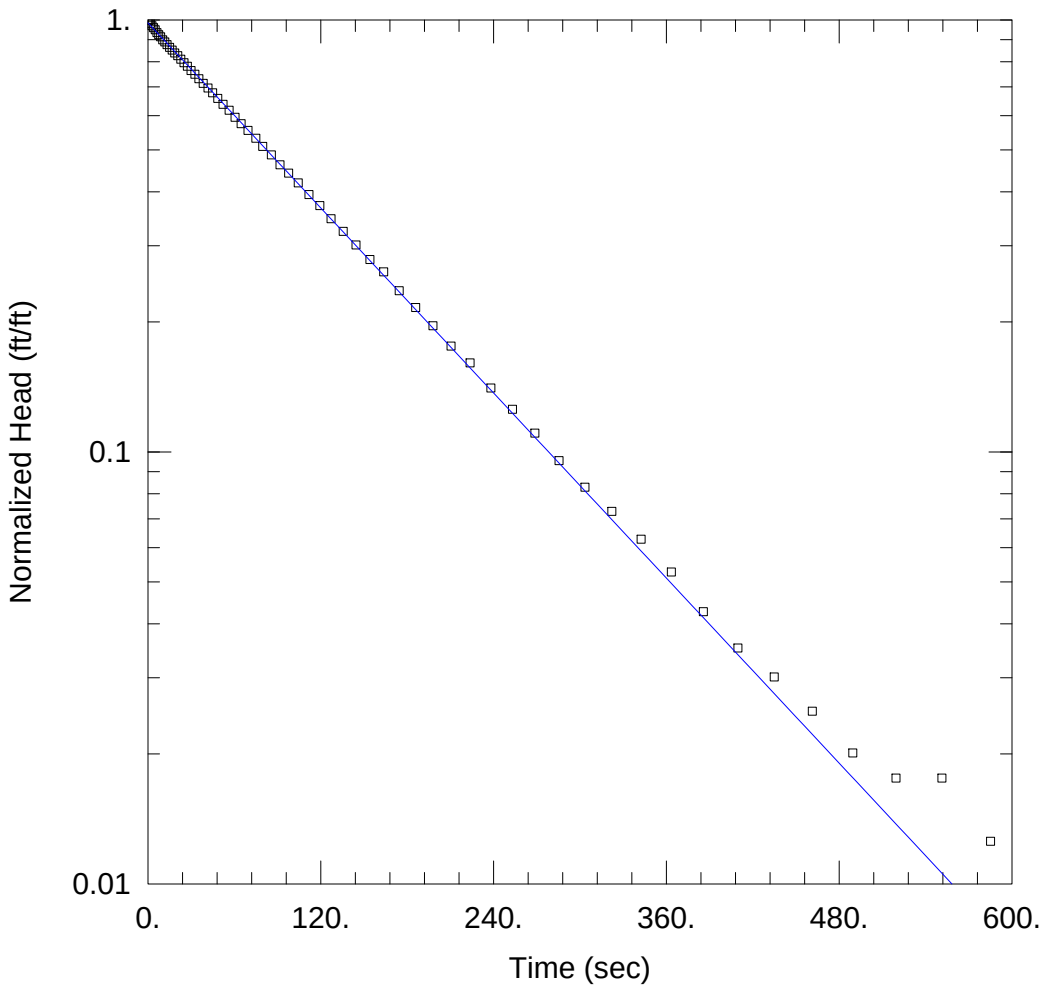
Saturated Thickness: 21.39 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (ARGWA-13)

Initial Displacement: 5.071 ft
Total Well Penetration Depth: 21.05 ft
Casing Radius: 0.083 ft
Static Water Column Height: 20.8 ft
Screen Length: 10. ft
Well Radius: 0.375 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.5899 ft/day
y0 = 3.957 ft



SLUG OUT

Data Set: P:\...\ARGWA-13_Slug Out.aqt
Date: 05/27/21 Time: 18:31:36

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWA-13
Test Date: 3-31-2021

AQUIFER DATA

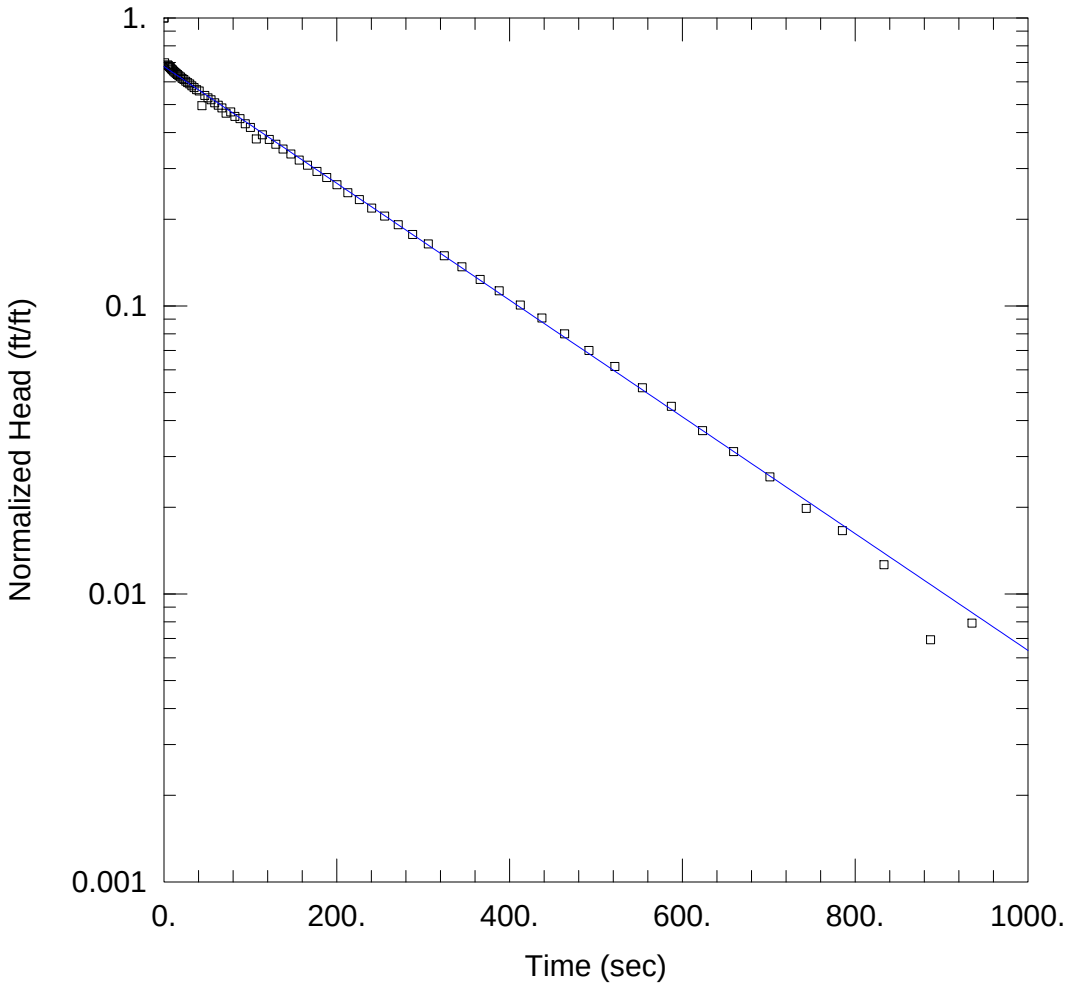
Saturated Thickness: 21.39 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (ARGWA-13)

Initial Displacement: 3.982 ft
Total Well Penetration Depth: 21.05 ft
Casing Radius: 0.083 ft
Static Water Column Height: 20.8 ft
Screen Length: 10. ft
Well Radius: 0.375 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.6804 ft/day
y0 = 3.919 ft



SLUG IN

Data Set: P:\...\ARGWC-17_Slug In.aqt
Date: 05/27/21 Time: 18:36:16

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWC-17
Test Date: 3-31-2021

AQUIFER DATA

Saturated Thickness: 12.9 ft Anisotropy Ratio (Kz/Kr): 0.2

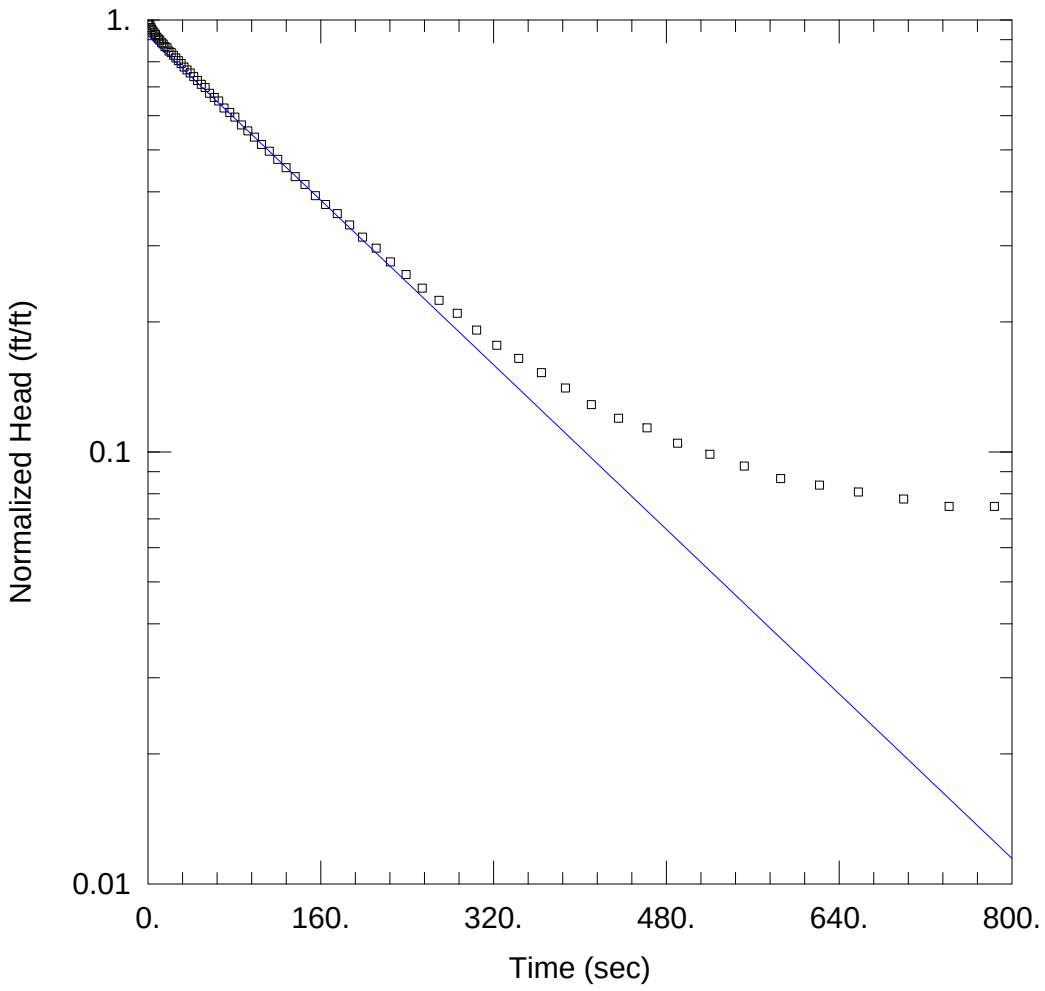
WELL DATA (ARGWC-17)

Initial Displacement: 4.04 ft
Total Well Penetration Depth: 12.61 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.77 ft
Screen Length: 10. ft
Well Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3. ft/day y0 = 2.739 ft



SLUG OUT

Data Set: P:\...\ARGWC-17_Slug Out.aqt
Date: 07/27/21 Time: 17:00:09

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWC-17
Test Date: 3-31-2021

AQUIFER DATA

Saturated Thickness: 12.9 ft Anisotropy Ratio (Kz/Kr): 0.2

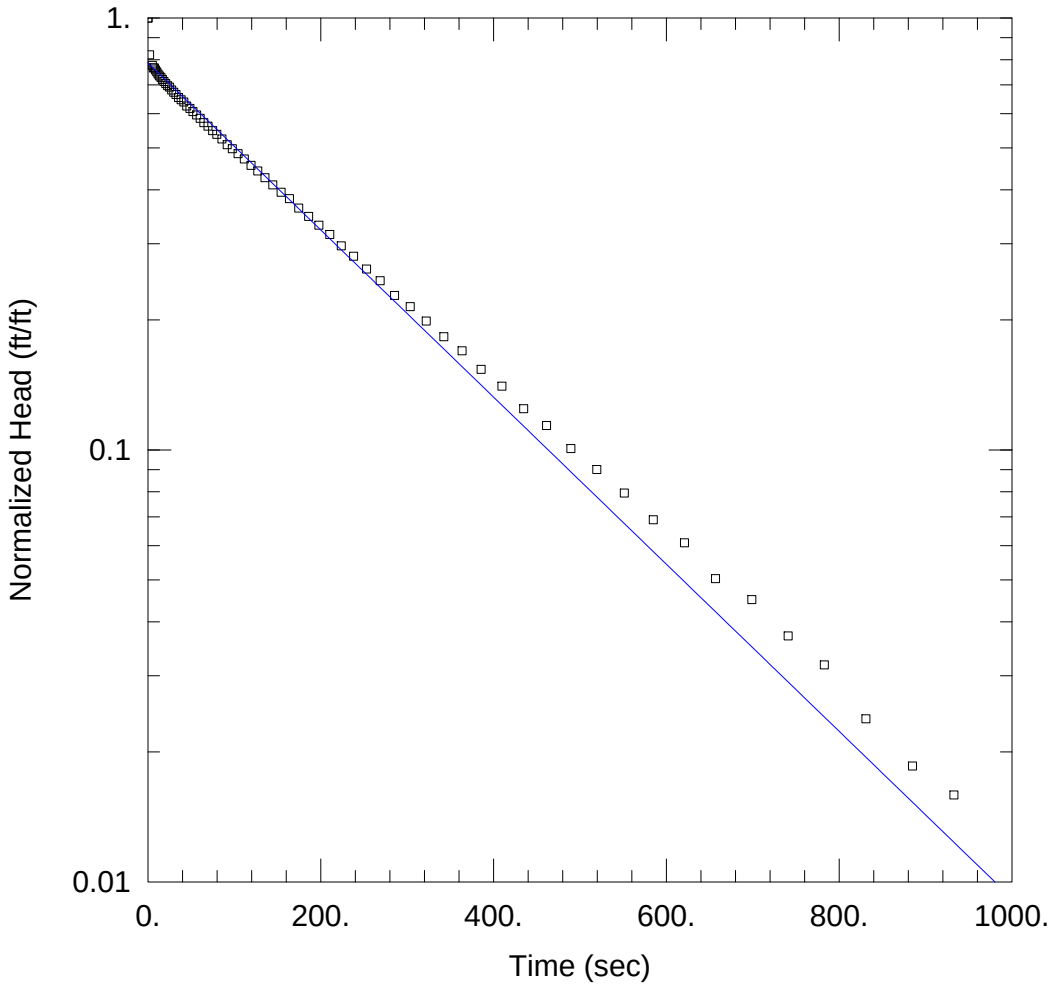
WELL DATA (ARGWC-17)

Initial Displacement: 3.342 ft
Total Well Penetration Depth: 12.61 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.76 ft
Screen Length: 10. ft
Well Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.523 ft/day y0 = 3.072 ft



SLUG IN

Data Set: P:\...\ARGWC-18_Slug In.aqt
Date: 05/27/21 Time: 18:37:15

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWC-18
Test Date: 3-31-2021

AQUIFER DATA

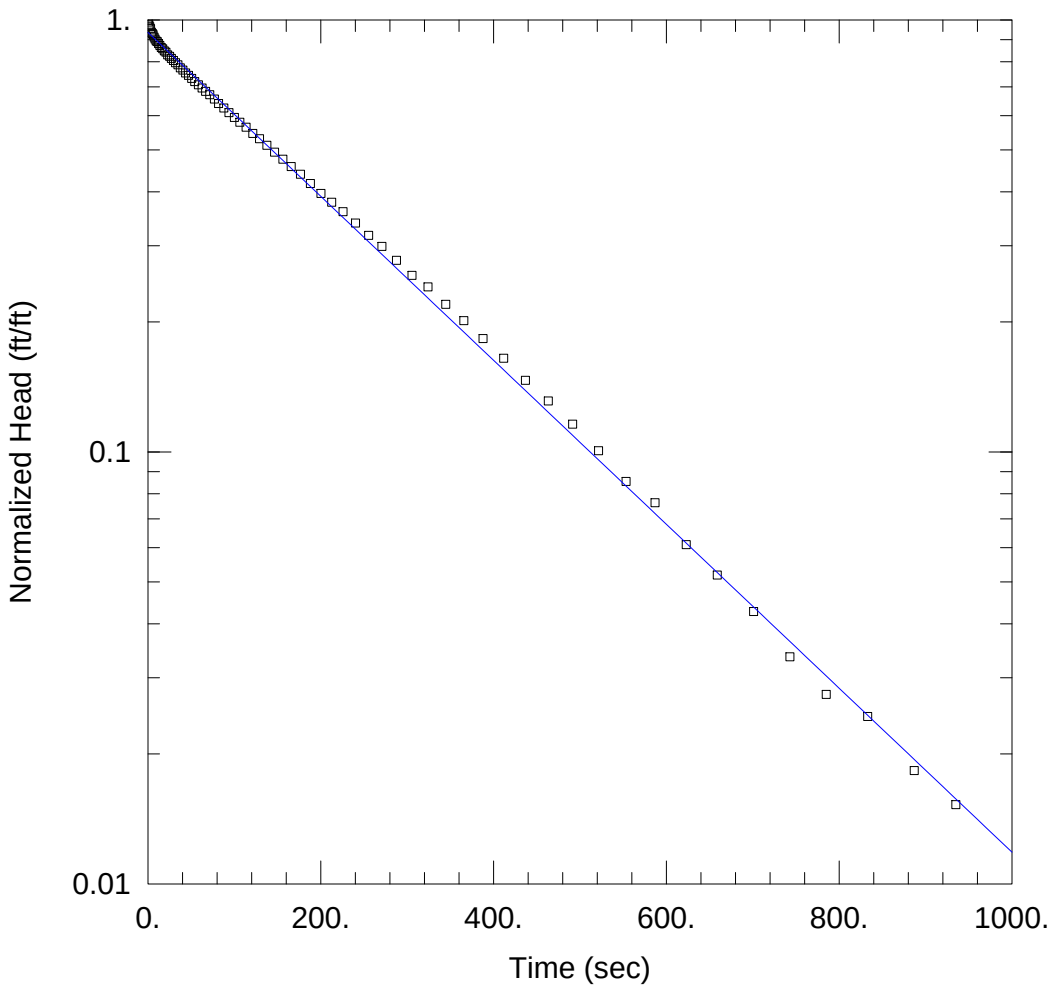
Saturated Thickness: 23.84 ft Anisotropy Ratio (Kz/Kr): 0.2

WELL DATA (ARGWC-18)

Initial Displacement: 3.774 ft
Total Well Penetration Depth: 23.53 ft
Casing Radius: 0.083 ft
Static Water Column Height: 23.29 ft
Screen Length: 10. ft
Well Radius: 0.375 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.4659 ft/day
y0 = 2.969 ft



SLUG OUT

Data Set: P:\...\ARGWC-18_Slug Out.aqt
Date: 05/27/21 Time: 18:37:35

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWC-18
Test Date: 3-31-2021

AQUIFER DATA

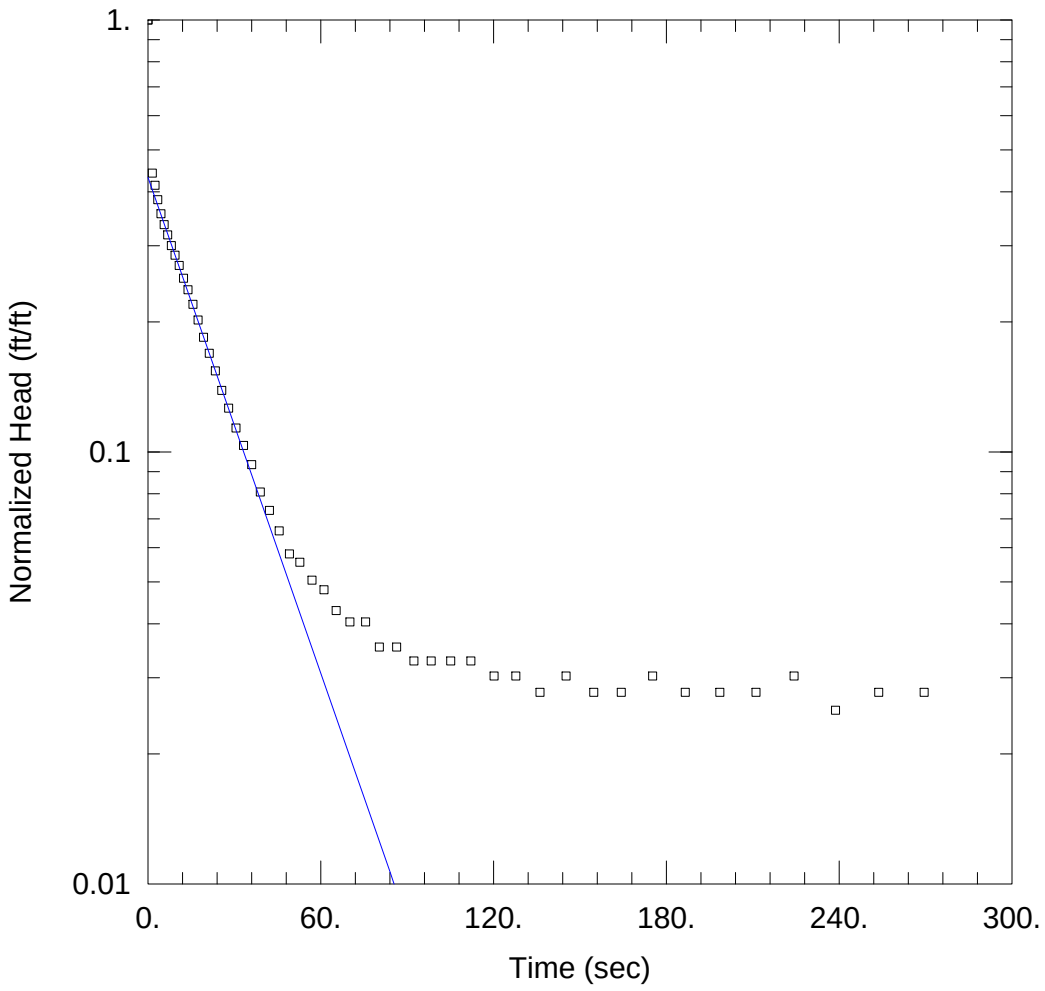
Saturated Thickness: 23.84 ft Anisotropy Ratio (Kz/Kr): 0.2

WELL DATA (ARGWC-18)

Initial Displacement: 3.278 ft
Total Well Penetration Depth: 23.53 ft
Casing Radius: 0.083 ft
Static Water Column Height: 23.24 ft
Screen Length: 10. ft
Well Radius: 0.375 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.4571 ft/day
y0 = 3.066 ft



SLUG IN

Data Set: P:\...\ARGWA-24_Slug In.aqt
Date: 05/27/21 Time: 20:23:59

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWA-24
Test Date: 3-31-2021

AQUIFER DATA

Saturated Thickness: 5.7 ft Anisotropy Ratio (Kz/Kr): 0.2

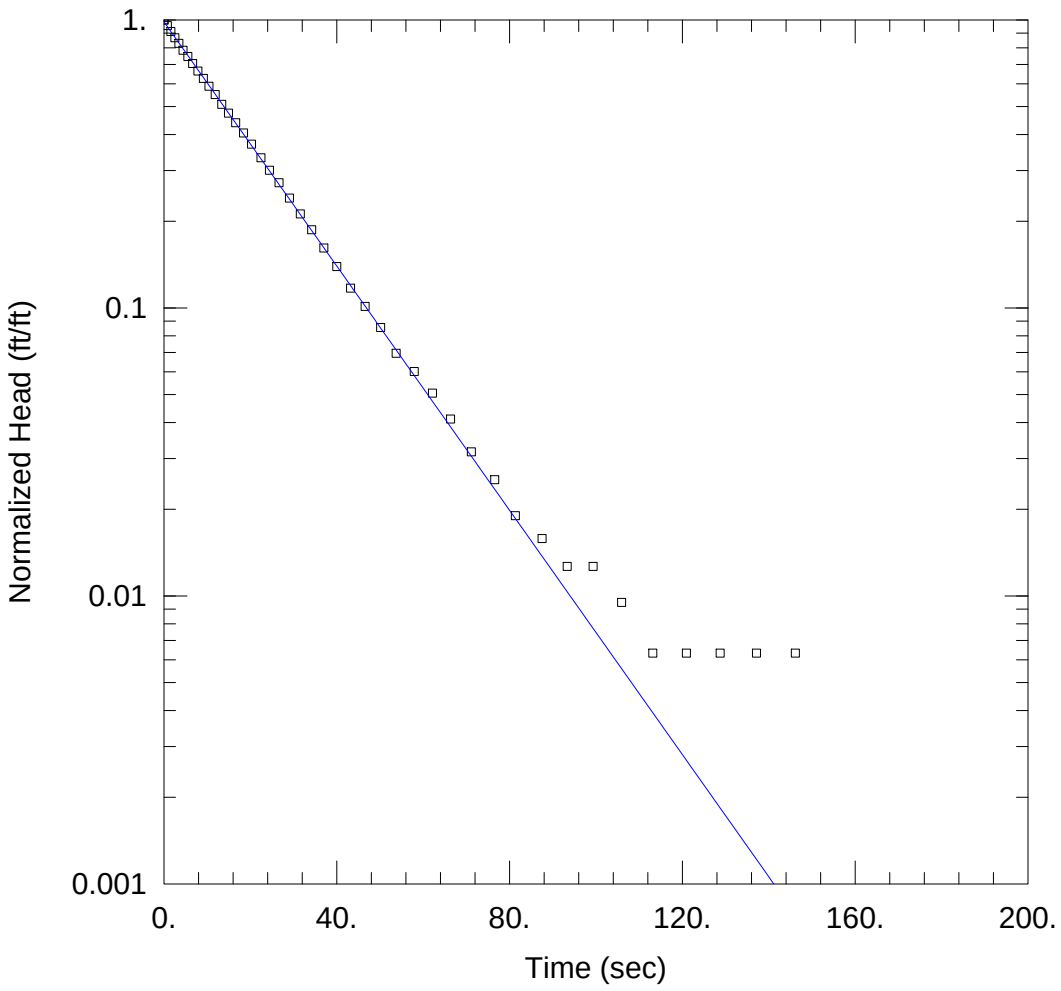
WELL DATA (ARGWA-24)

Initial Displacement: 3.961 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.39 ft
Screen Length: 10. ft
Well Radius: 0.208 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 16.84 ft/day y0 = 1.71 ft



SLUG OUT

Data Set: P:\...\ARGWA-24_Slug Out.aqt
Date: 05/27/21 Time: 20:24:56

PROJECT INFORMATION

Company: Wood E&IS
Client: GA Power
Project: 6122201429
Location: Plant Arkwright AP-3
Test Well: ARGWA-24
Test Date: 3-31-2021

AQUIFER DATA

Saturated Thickness: 8.62 ft Anisotropy Ratio (Kz/Kr): 0.2

WELL DATA (ARGWA-24)

Initial Displacement: 3.16 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.39 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 16.04 ft/day y0 = 3.113 ft

APPENDIX B

CONSTITUENT CONCENTRATION STABILITY ANALYSIS

METHODOLOGY OF PLUME STABILITY ANALYSIS

Methodology of Constituent Concentration Stability Assessment

A prerequisite for considering monitored natural attenuation (MNA) as a component of a remedial design for groundwater is the stability of the dissolved contaminant's concentration distribution. Expansion contaminant concentrations precludes MNA as a remedial option (OSWER Directive 9200.4-17P). Because only samples collected at various sample points are available, giving an incomplete picture of concentrations, an estimate of the extents and concentrations through time have to be made to be able to assess constituent concentration stability. Two methods of evaluating constituent concentration stability are through assessment of individual wells' concentration trends and site-wide concentration trends.

Individual Wells' Concentration Trends

It is possible to summarize individual wells' concentration trends as a measure of constituent concentration stability. If most of the wells with elevated constituent concentrations are not increasing in concentration (and any increasing trend wells are not near the edge of the area of elevated concentrations), it can be reasoned that the area of elevated constituent concentrations as a whole is not appreciably growing and MNA may be investigated as a possible remediation choice. This reasoning can only be made if virtually all wells are not increasing but can be persuasive if there are almost no increasing trends, as long as the constituent concentrations have been well-characterized and delineated. Individual wells' concentration trend plots are provided below.

Site-Wide Concentration Trends

In addition to individual wells' concentration trends, yet another way to assess constituent concentration stability is to statistically examine the combined trends of all the wells and determine if the overall trend is significantly statistically different from a random change combination of trends. One such test was originated by van Belle and Hughes (1984) and was originally proposed as a test for homogeneity of trends between seasons. Gilbert (1987) in section 16.4.4, describes an application of this method for testing homogeneity of trends across a "basin" or group of related sample points.

In this method, MK scores from all wells' trend tests are combined in such a way that the results can be partitioned into two parts: the actual trend and the remaining variation. This second part (remaining variation) is a measure of the homogeneity (sameness) of the group. Through a statistical method of chi-squares, these two quantities are estimated for the group of wells and a test of homogeneity is calculated using a standard chi-square table and (number of sample locations – 1) degrees of freedom. If the homogeneity chi-square value is greater than the listed critical value the specified certainty (alpha) and degrees of freedom, then no statement can be

made about a site-wide trend. There is no site-wide trend apparent, just the expected variation of a random group. If this is the case, no further analysis of the site-wide trend is possible.

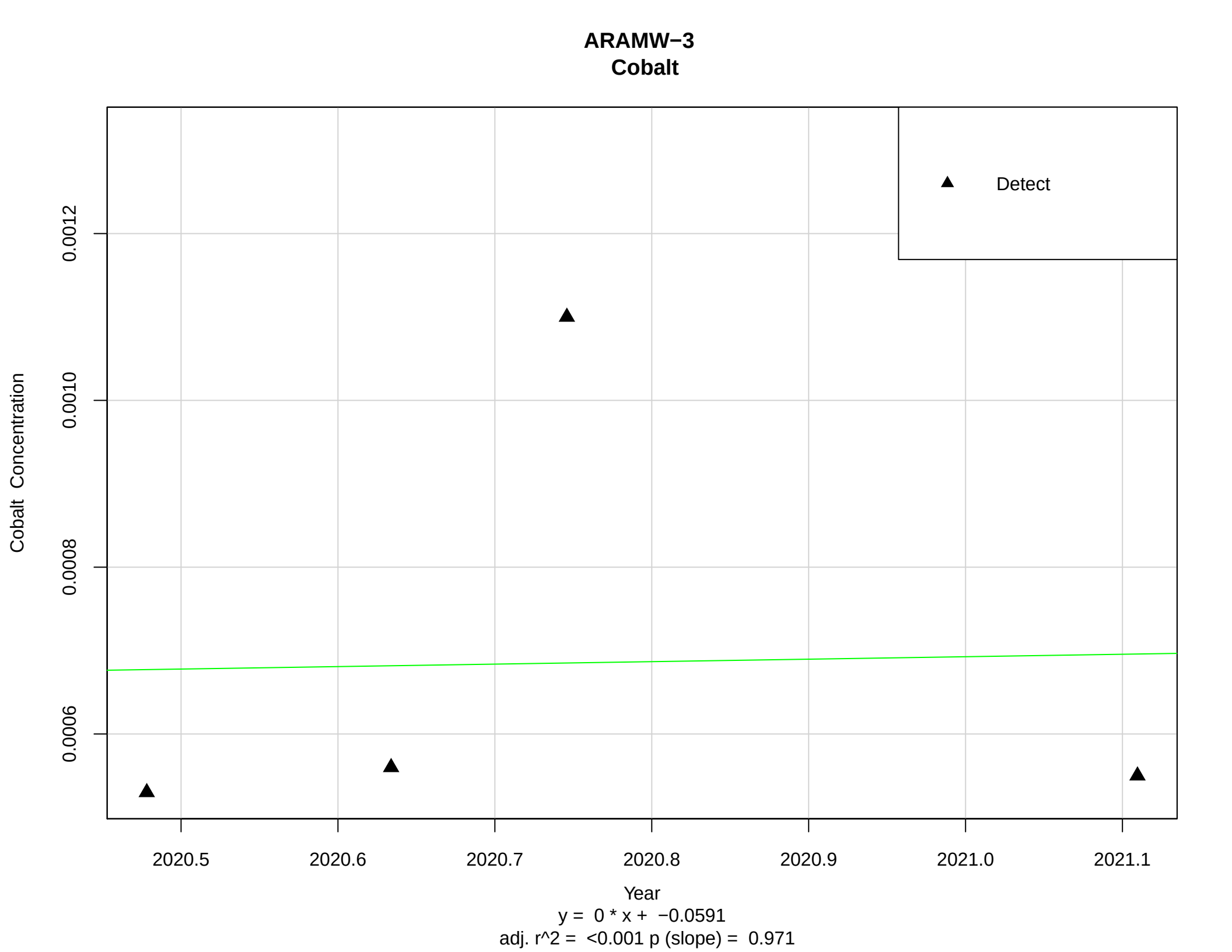
On the other hand, if the homogeneity chi-square value is less than the tabulated value, then homogeneity of the group is assumed, and the existence of a site-wide trend can be examined. The chi-square value of the trend can be compared to the table value for a certain alpha and one degree of freedom to test for a non-zero site-wide trend. If the trend chi-square exceeds the tabulated value for one degree of freedom, then we must assume there is a trend present in addition to any expected variation from a group this size. The direction of the trend can be determined from the result. An increasing trend would suggest MNA is not appropriate for a remediation method.

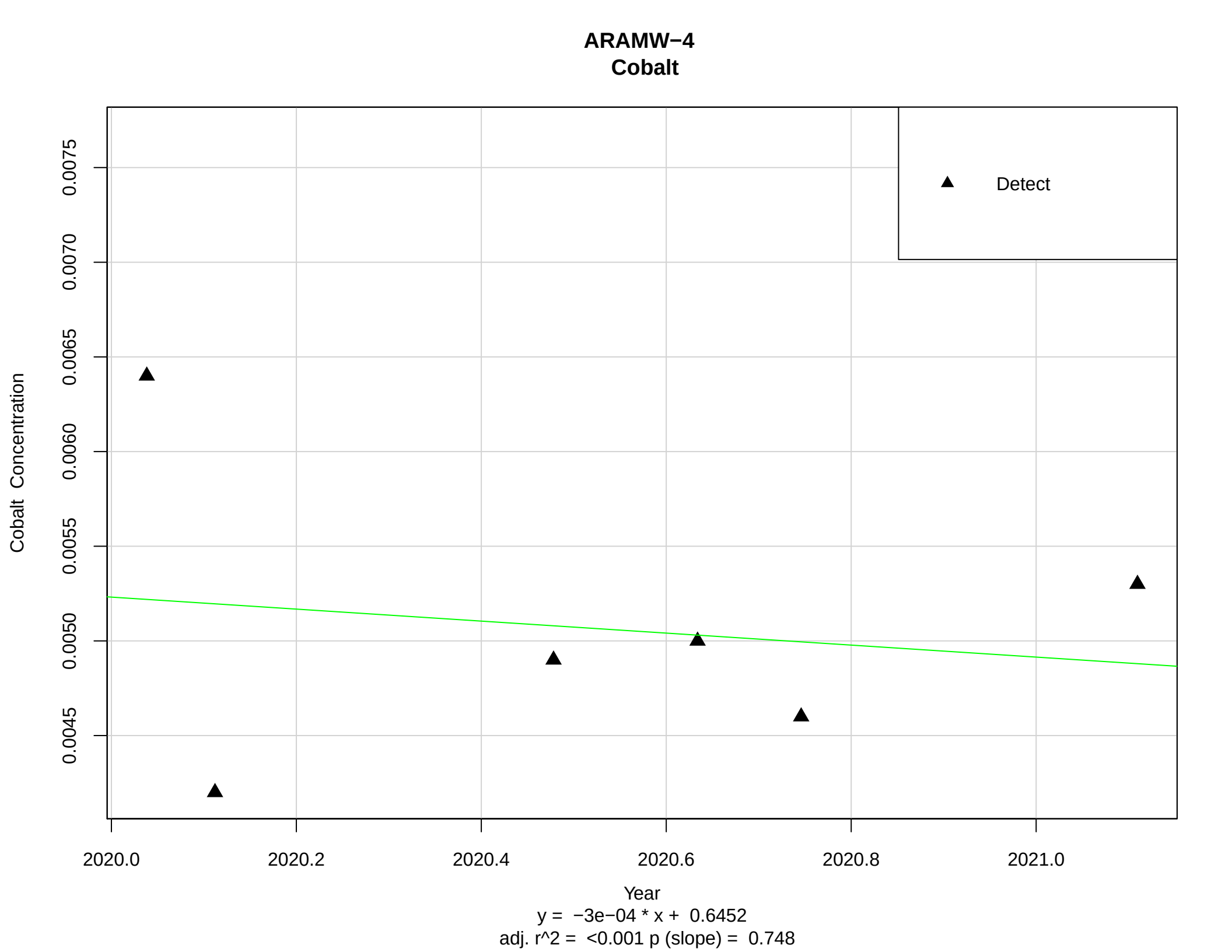
References:

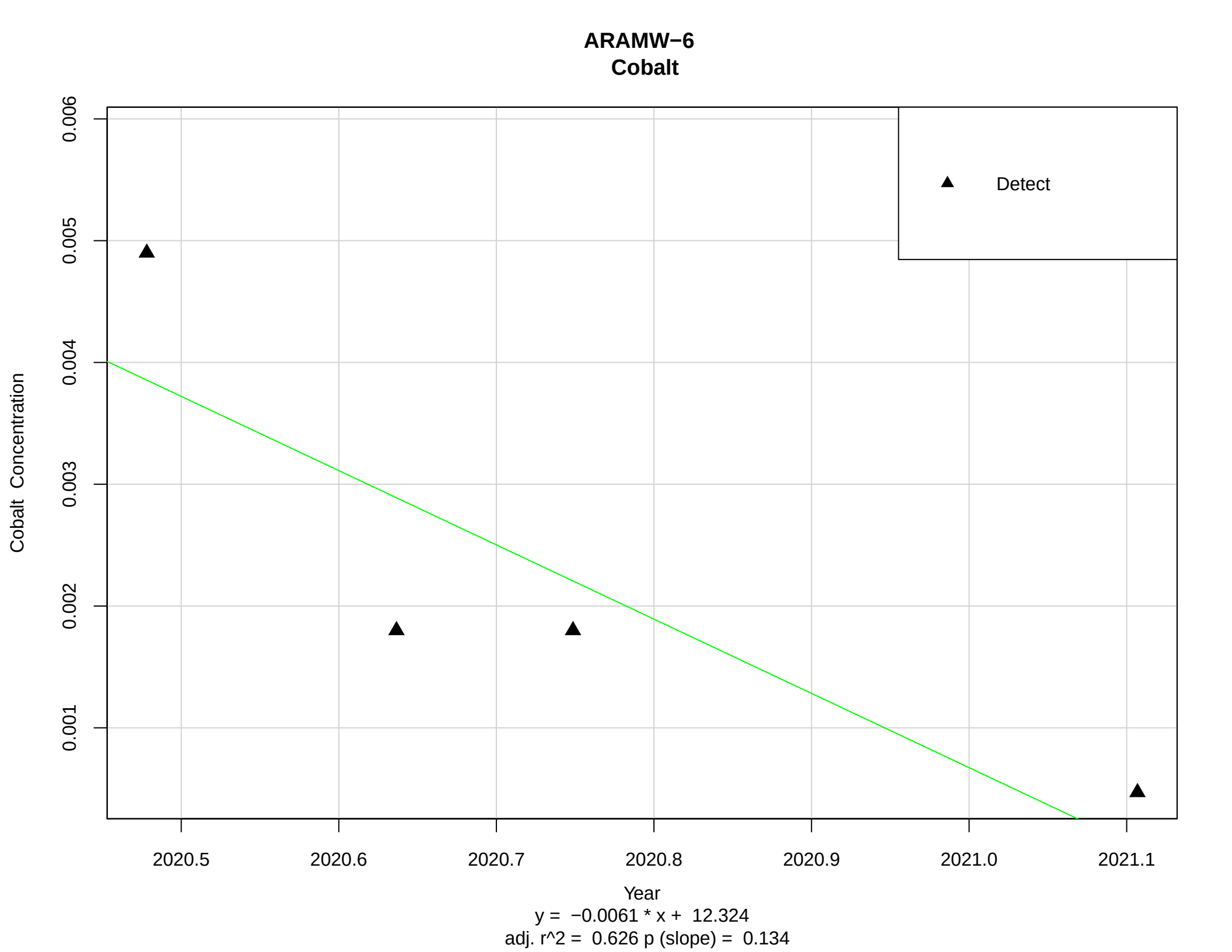
Gilbert, R. O. 1987. *Statistical Methods for Environmental Pollution Monitoring* Van Nostrand Reinhold, New York.

van Belle, G. and Hughes, J.P., 1984. Nonparametric Tests for Trend in Water Quality. Water Resources Research, 20, 127-136.

TREND ANALYSIS


ARAMW−3
Cobalt
Detect
Cobalt Concentration
0.0006
0.0008
0.0010
0.0012
2020.5
2020.6
2020.7
2020.8
2020.9
2021.0
2021.1
Year
y = 0 * x + −0.0591
adj. r^2 = <0.001 p (slope) = 0.971


ARAMW−4
Cobalt
Detect
Cobalt Concentration
0.0045
0.0050
0.0055
0.0060
0.0065
0.0070
0.0075
2020.0
2020.2
2020.4
2020.6
2020.8
2021.0
Year
y = −3e−04 * x + 0.6452
adj. r^2 = <0.001 p (slope) = 0.748


ARAMW−6
Cobalt
Detect
Cobalt Concentration
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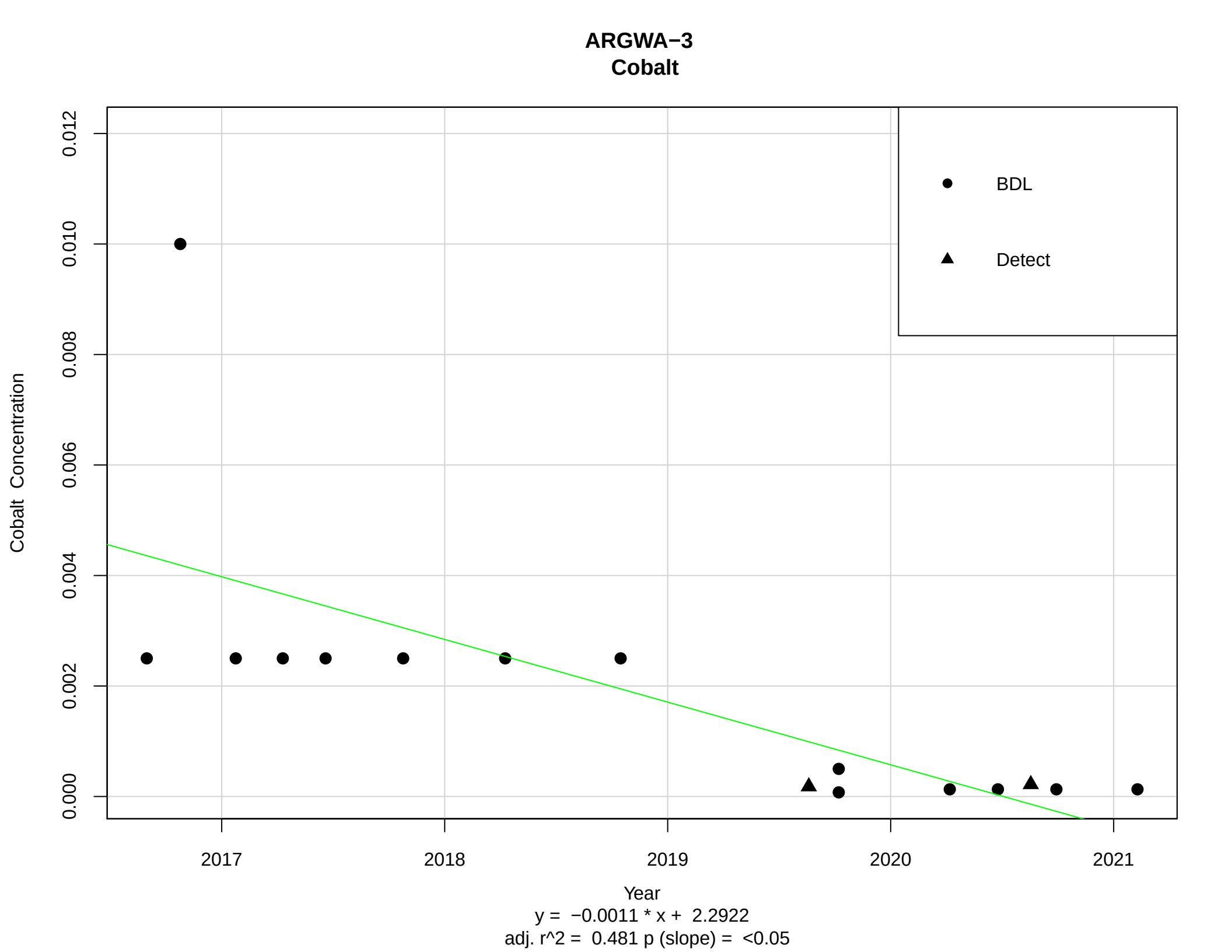
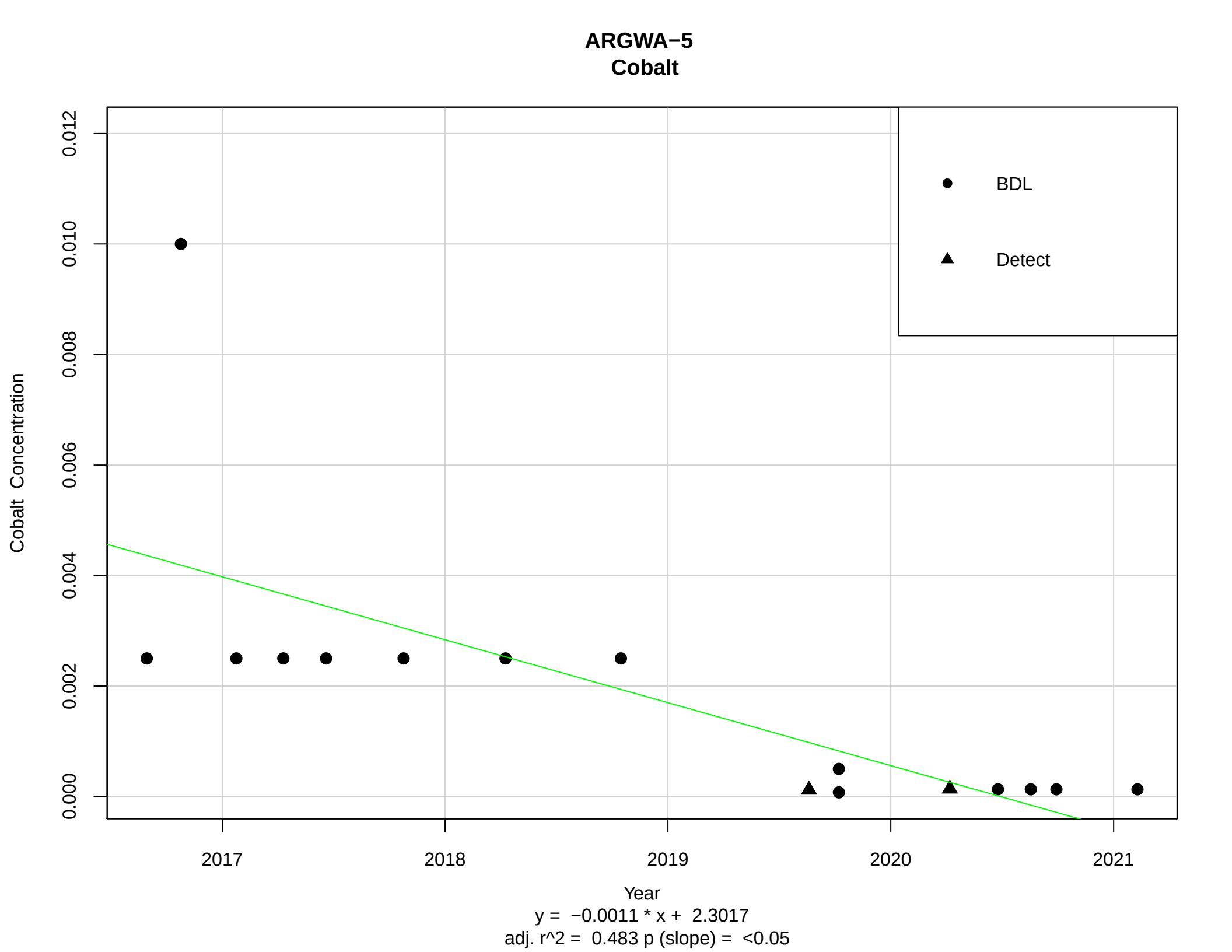
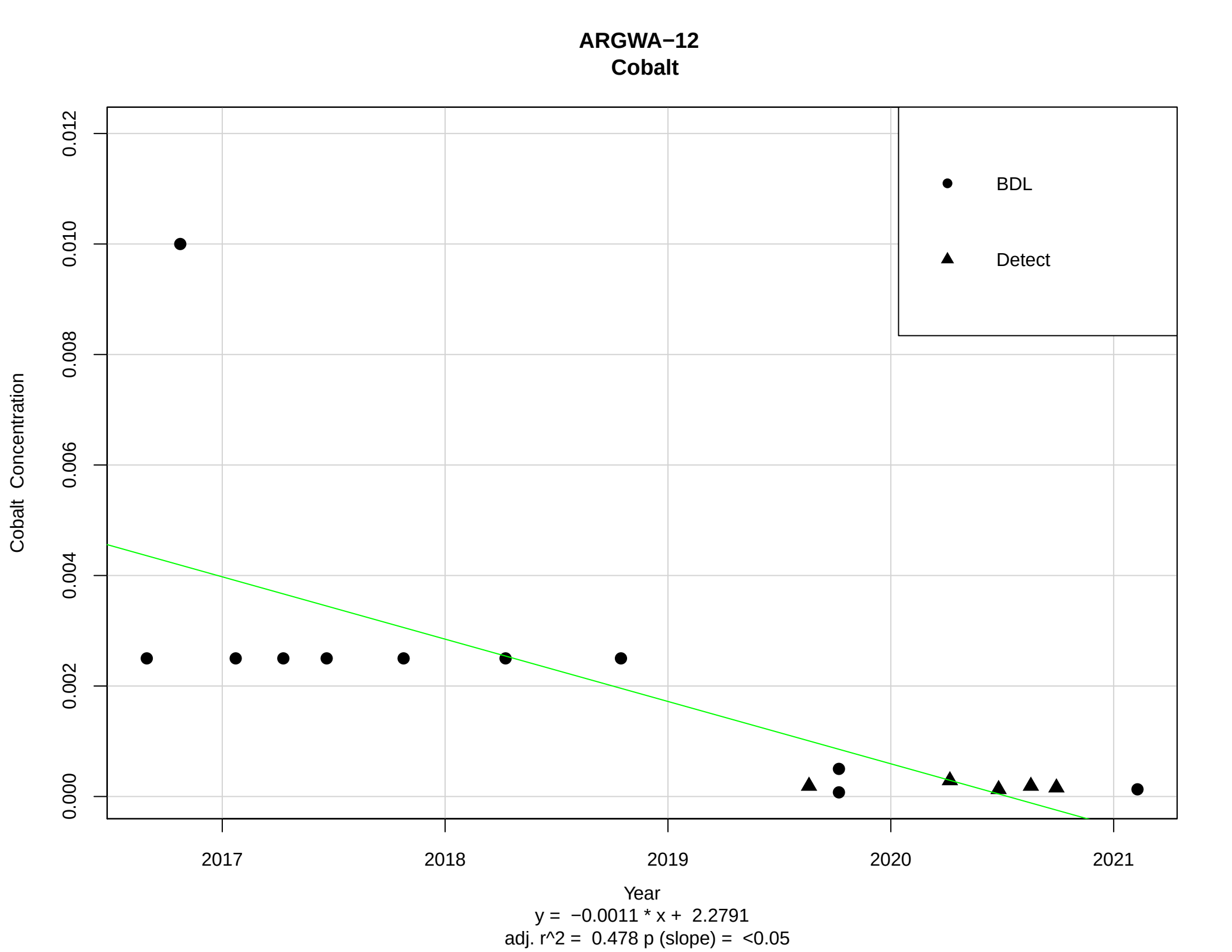
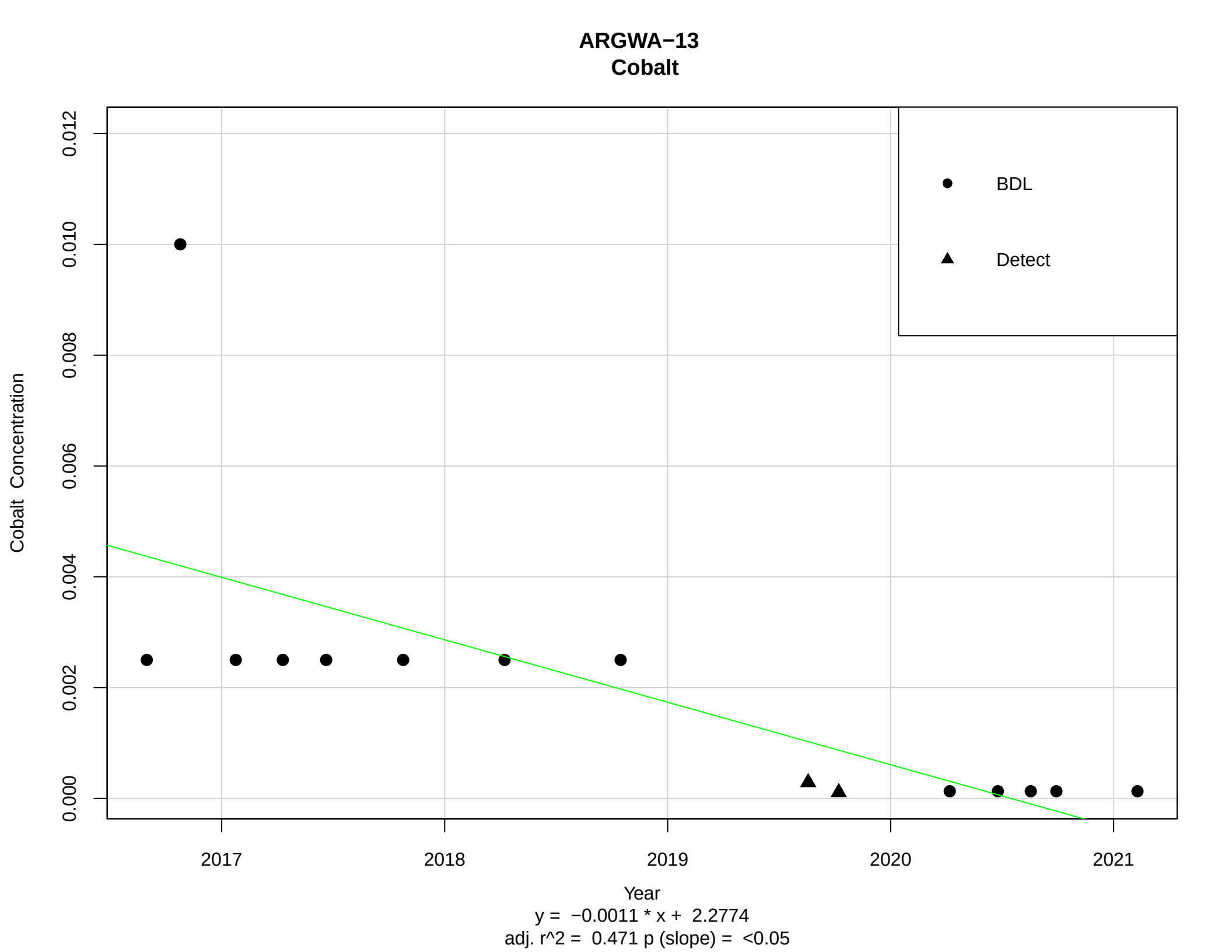
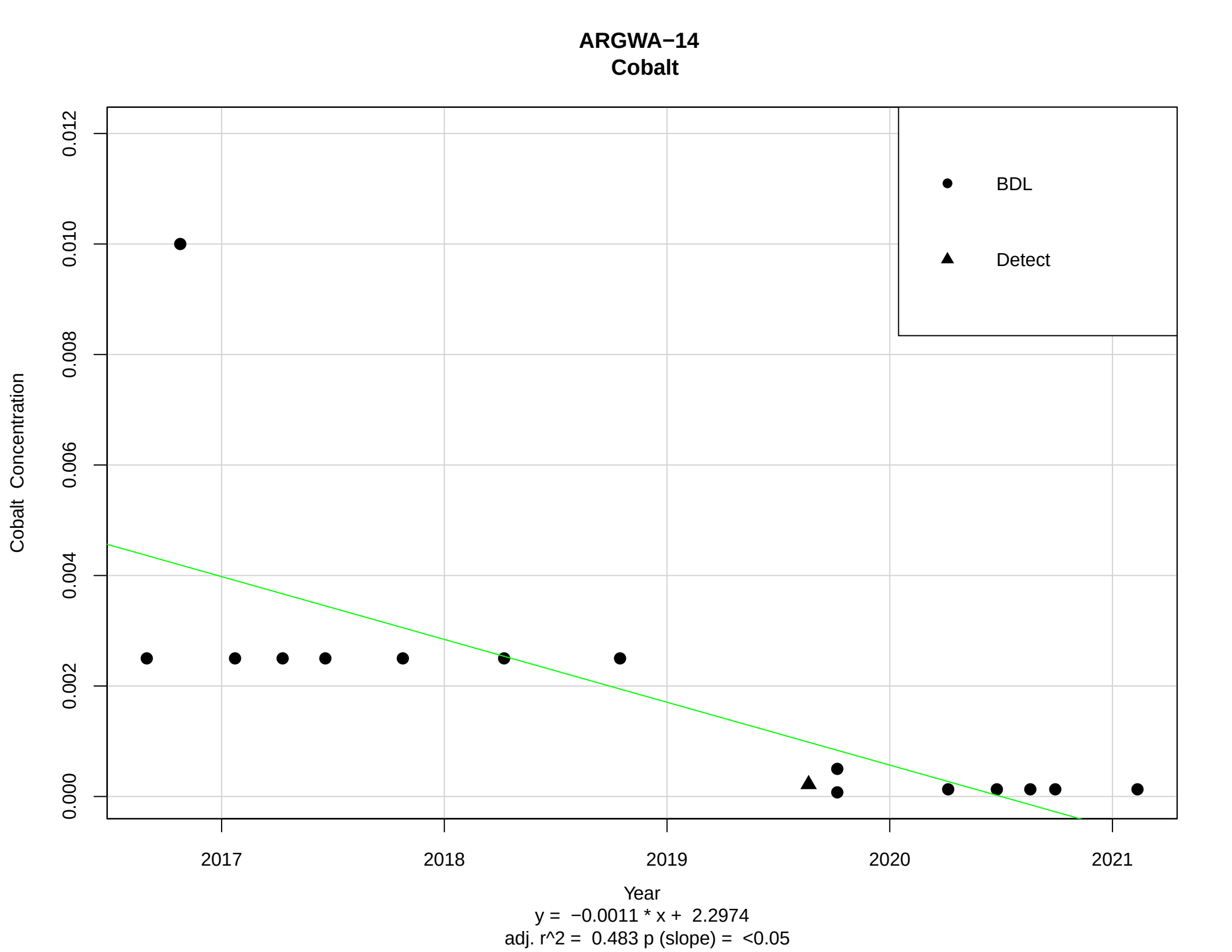
0.002
0.003
0.004
0.005
0.006
2020.5
2020.6
2020.7
2020.8
2020.9
2021.0
2021.1
Year
y = −0.0061 * x + 12.324
adj. r^2 = 0.626 p (slope) = 0.134

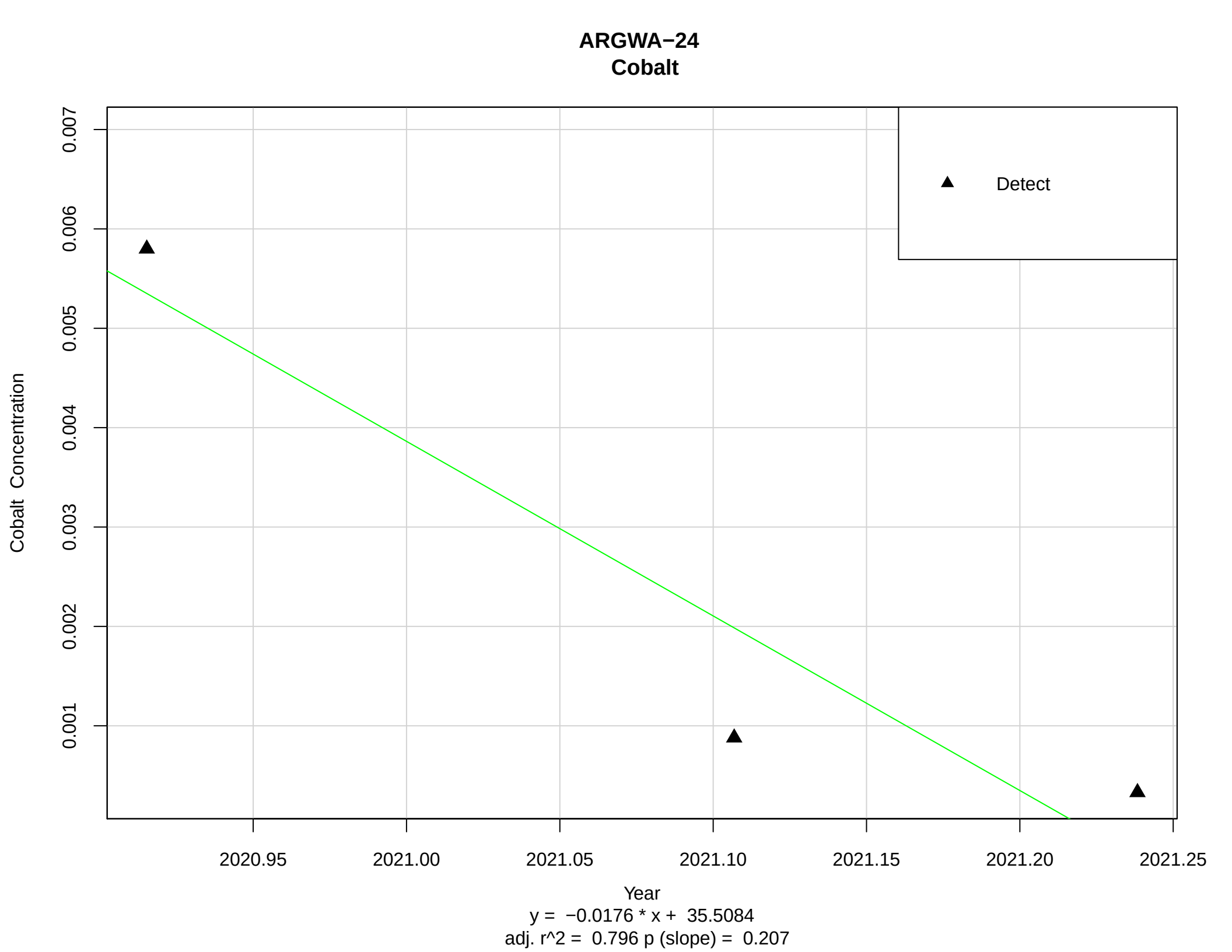

ARGWA−3
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2922
adj. r^2 = 0.481 p (slope) = <0.05

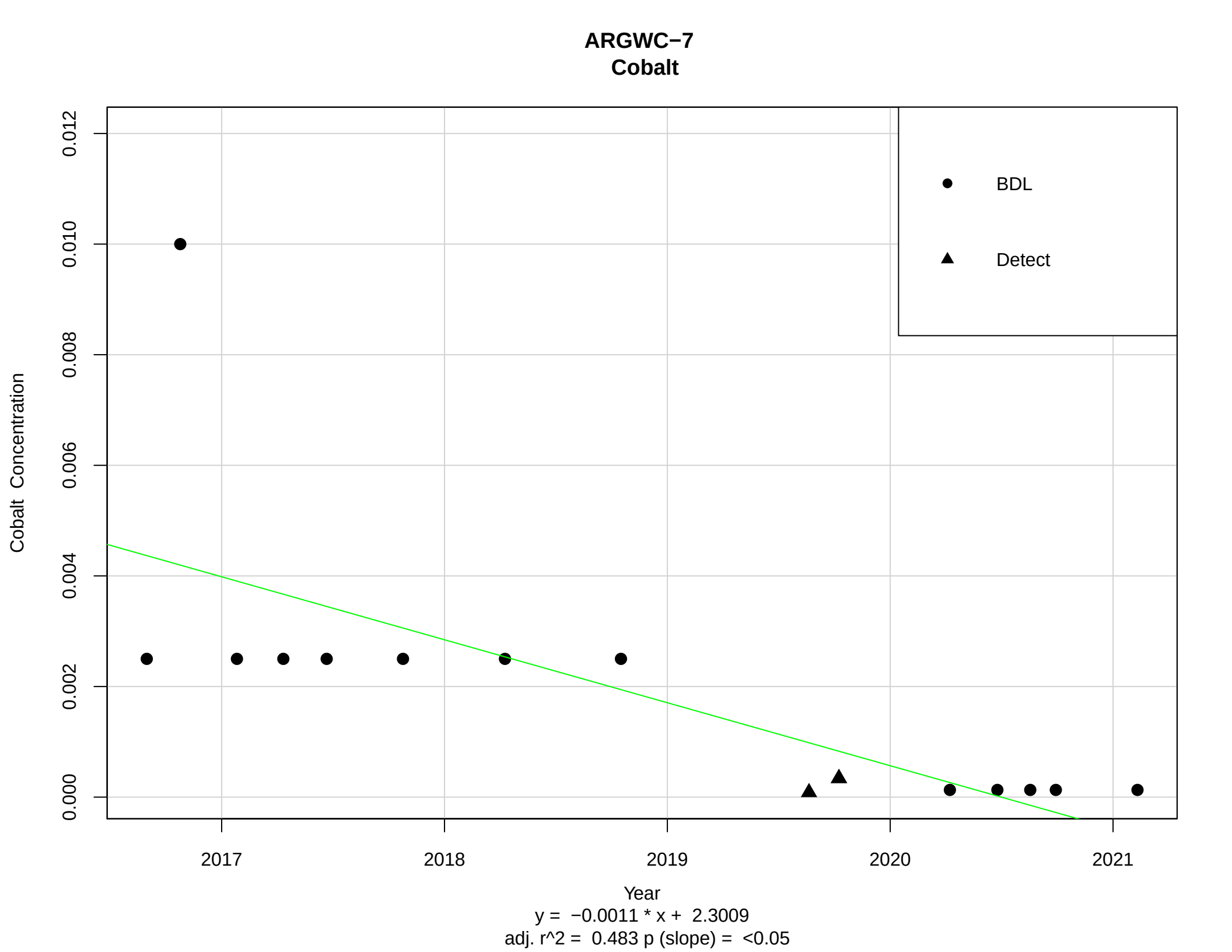

ARGWA−5
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.3017
adj. r^2 = 0.483 p (slope) = <0.05

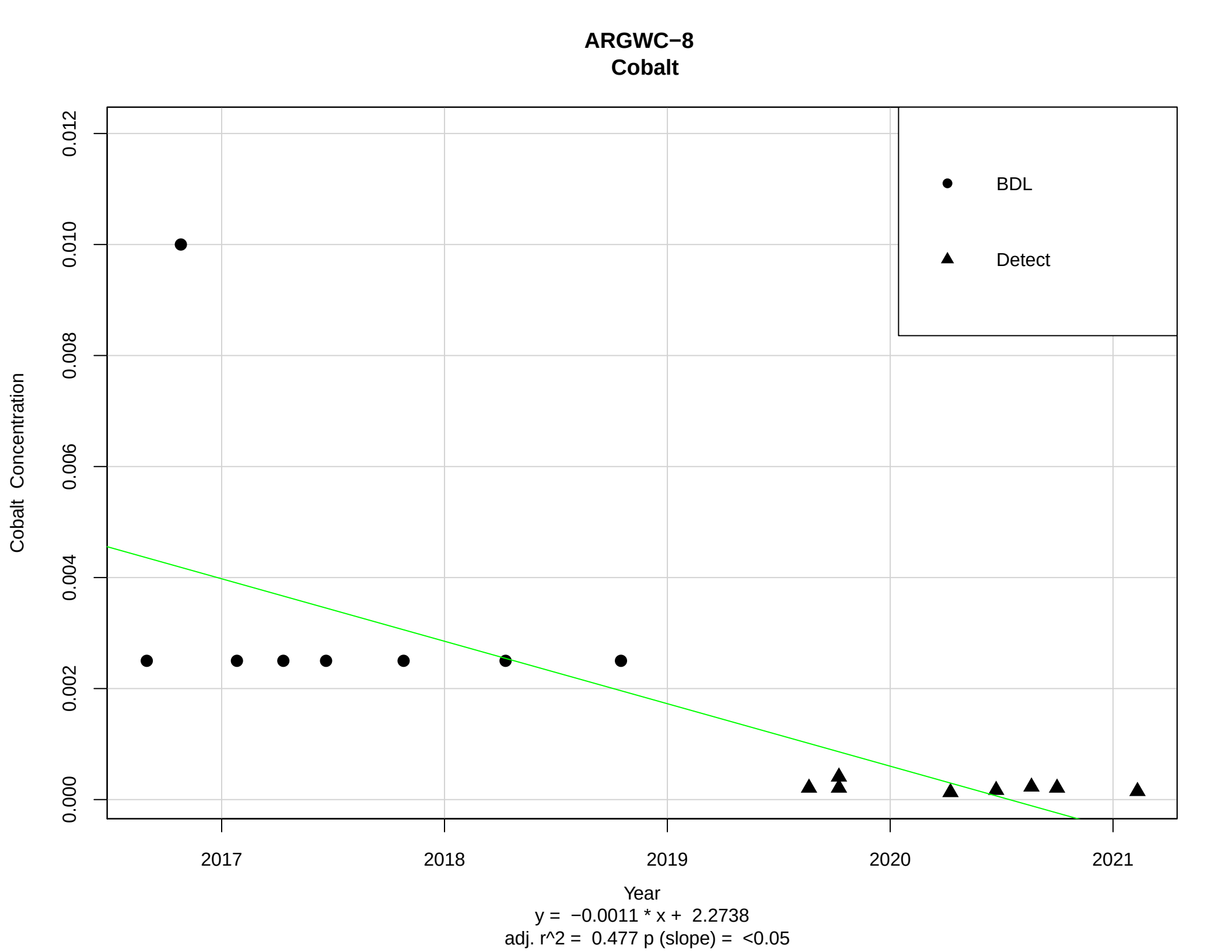

ARGWA−12
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2791
adj. r^2 = 0.478 p (slope) = <0.05

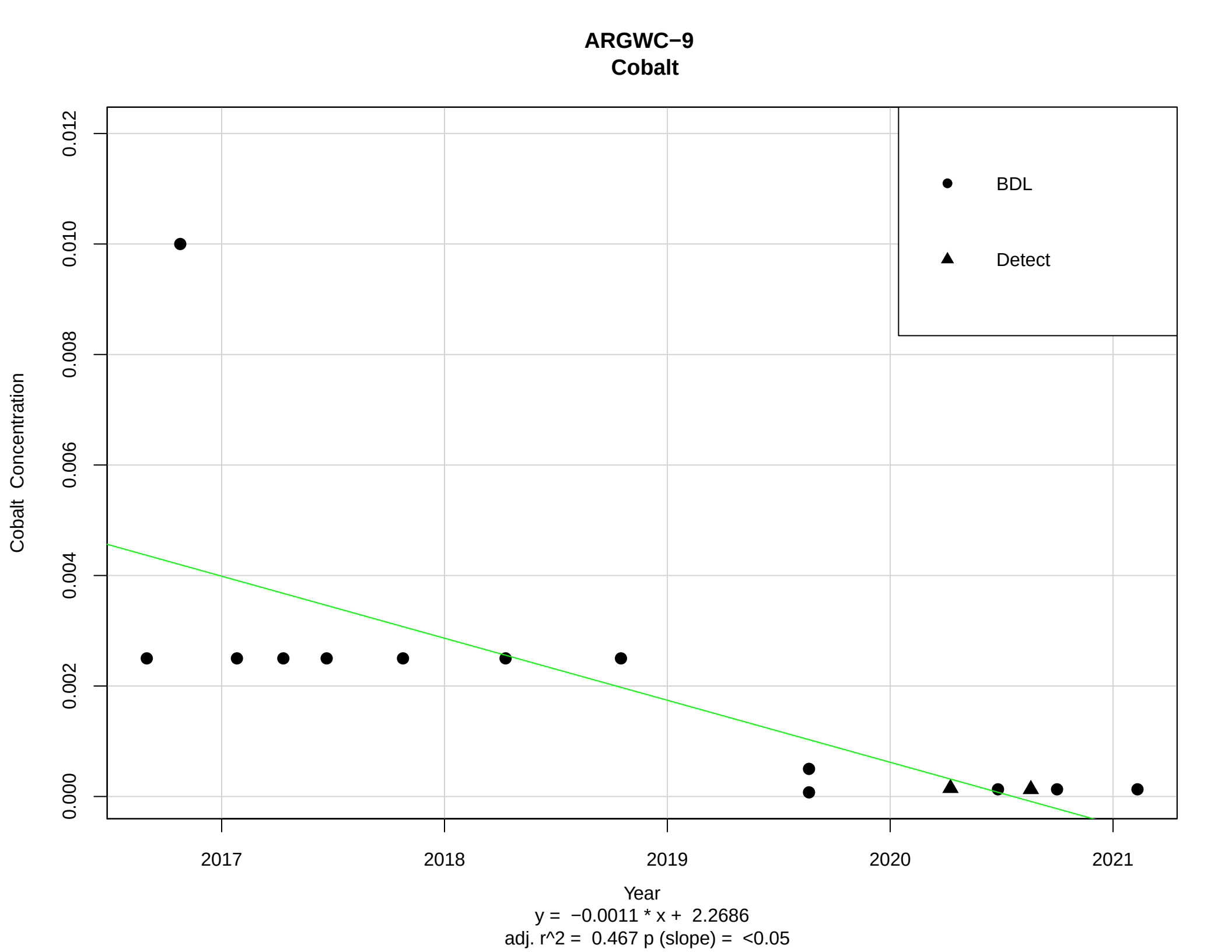

ARGWA−13
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2774
adj. r^2 = 0.471 p (slope) = <0.05

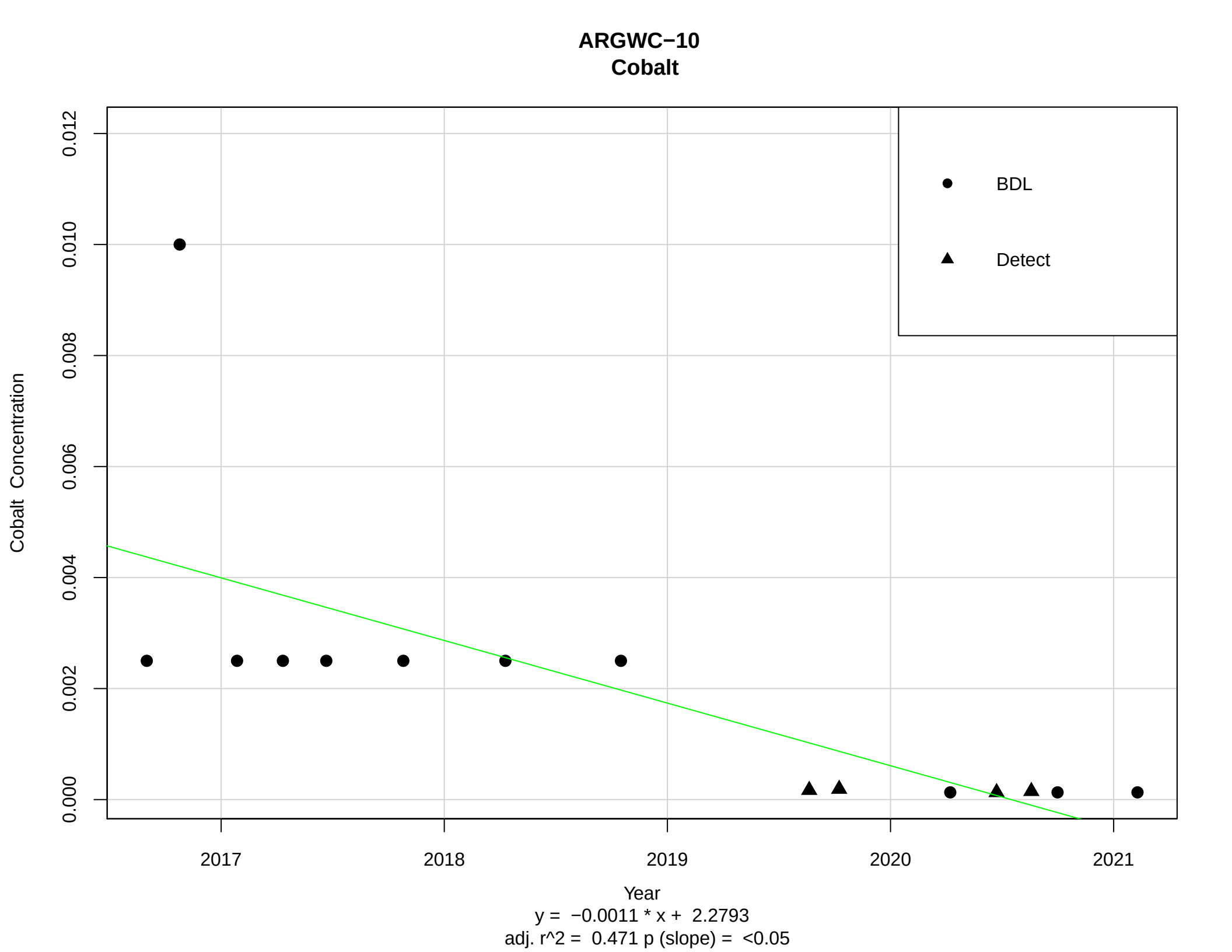

ARGWA−14
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2974
adj. r^2 = 0.483 p (slope) = <0.05

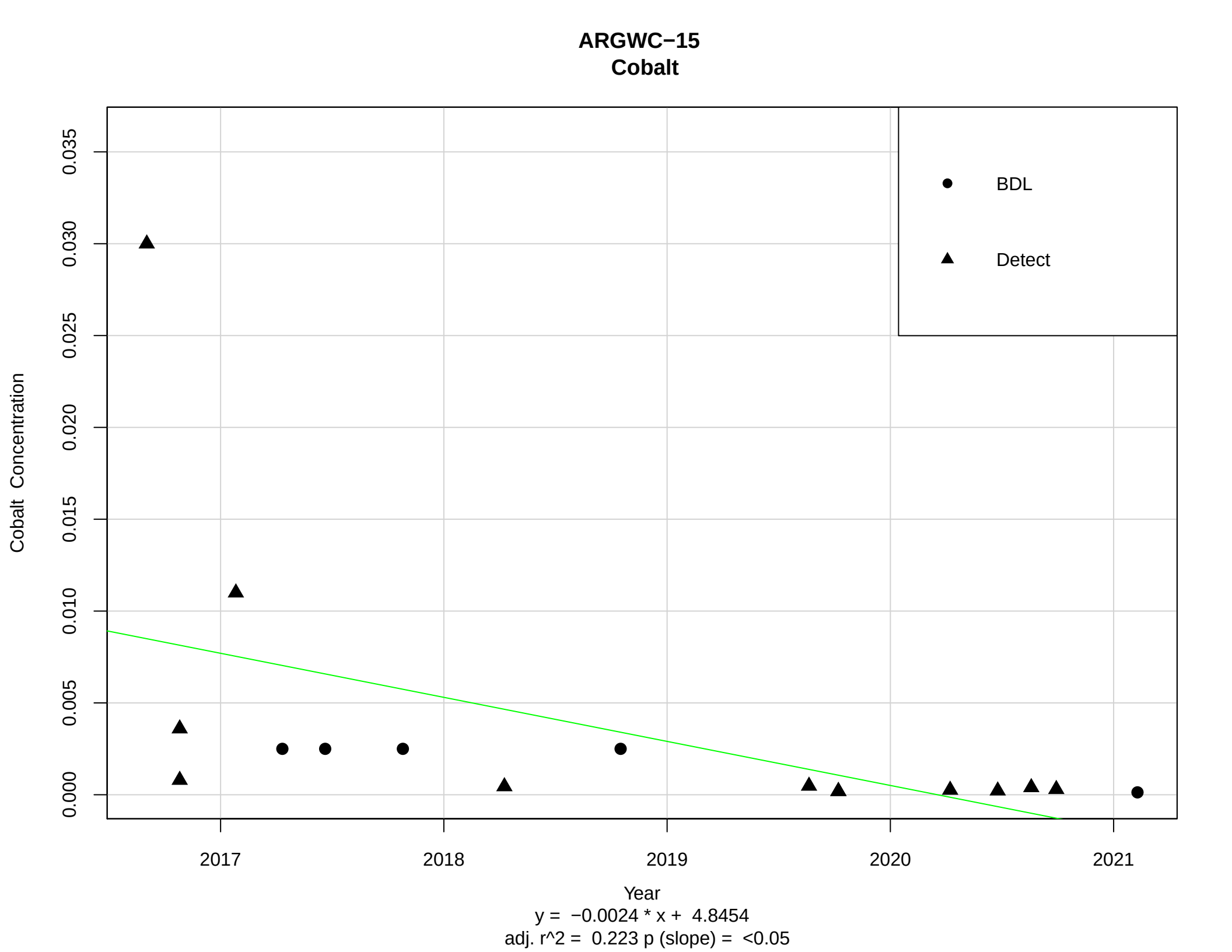

ARGWA−24
Cobalt
Detect
Cobalt Concentration
0.001
0.002
0.003
0.004
0.005
0.006
0.007
2020.95
2021.00
2021.05
2021.10
2021.15
2021.20
2021.25
Year
y = −0.0176 * x + 35.5084
adj. r^2 = 0.796 p (slope) = 0.207

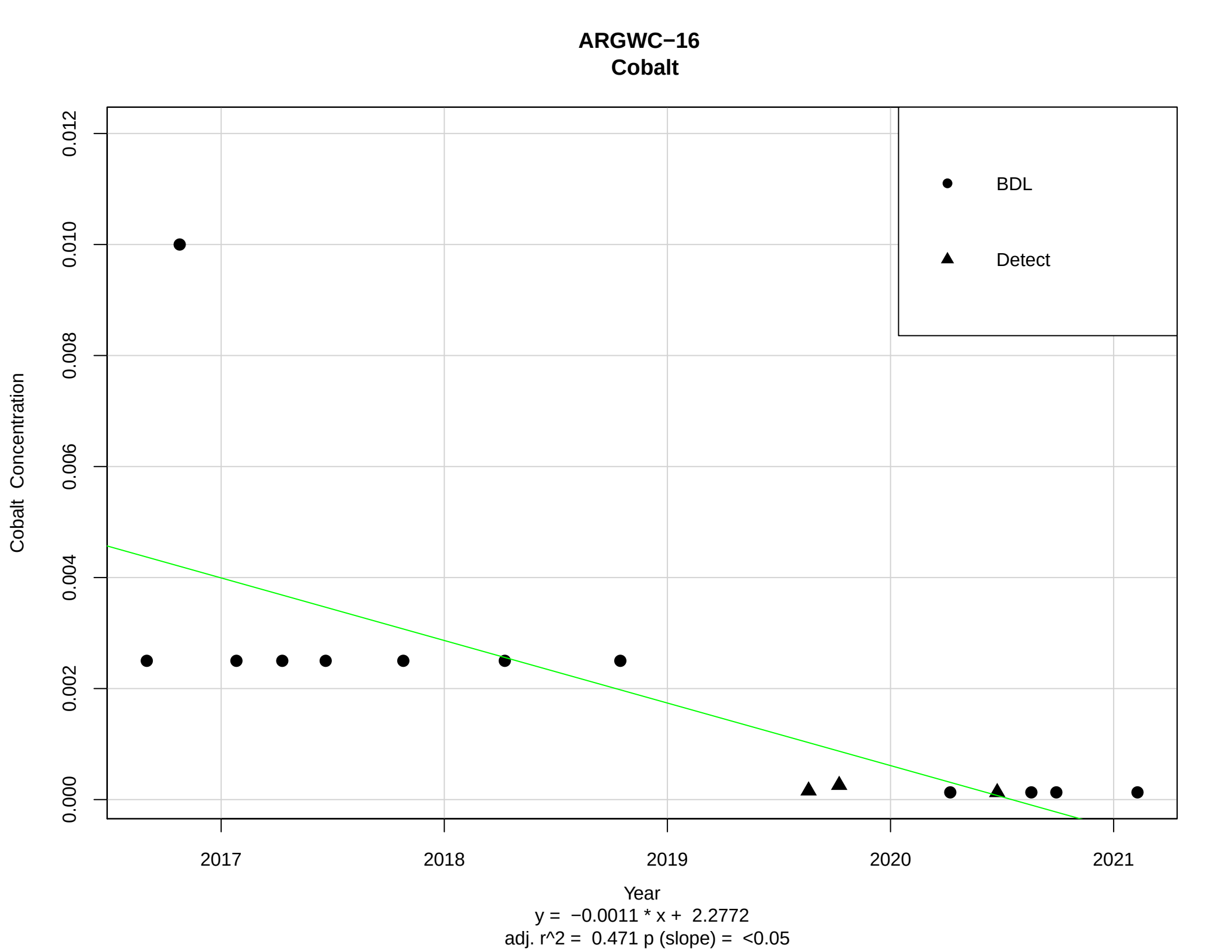

ARGWC−7
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.3009
adj. r^2 = 0.483 p (slope) = <0.05

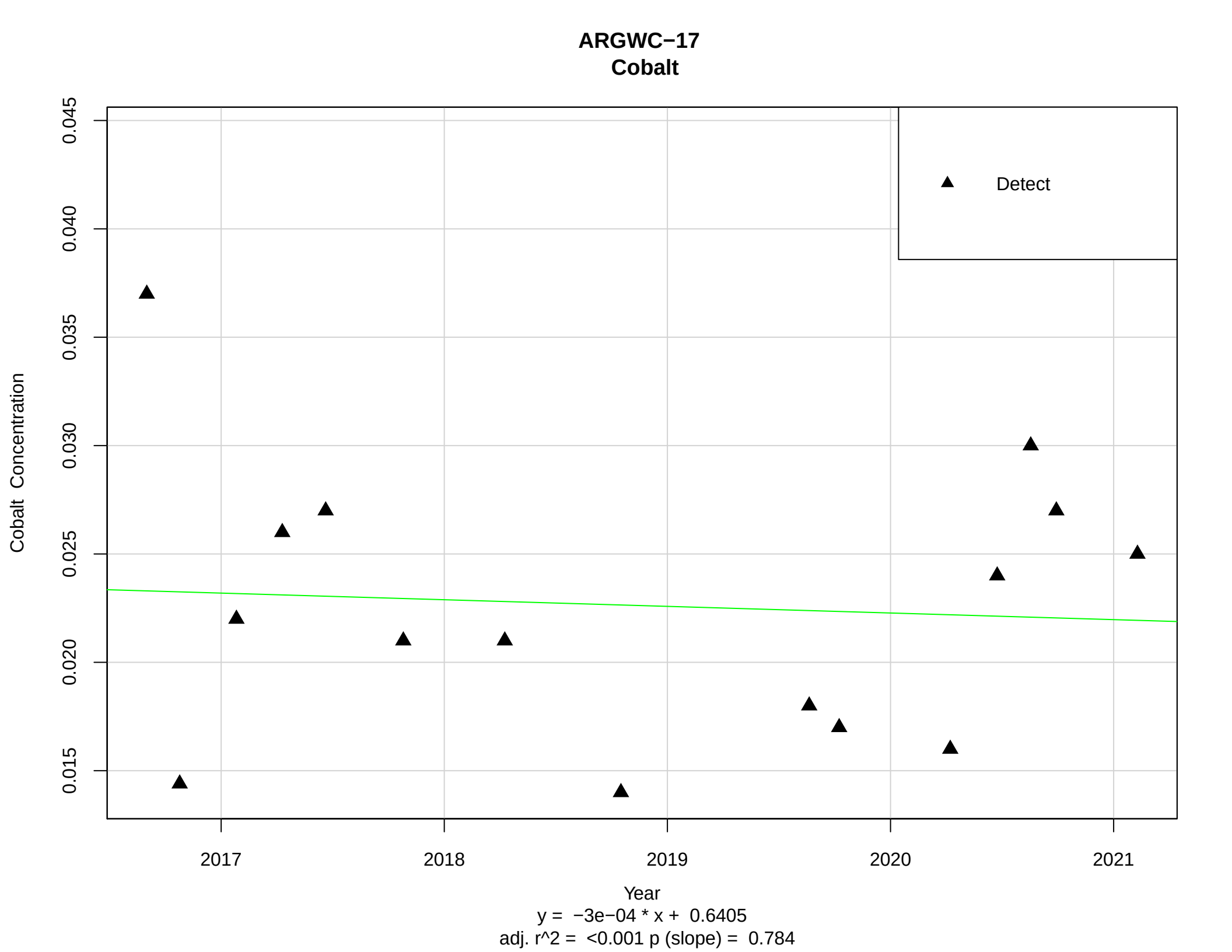

ARGWC−8
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2738
adj. r^2 = 0.477 p (slope) = <0.05

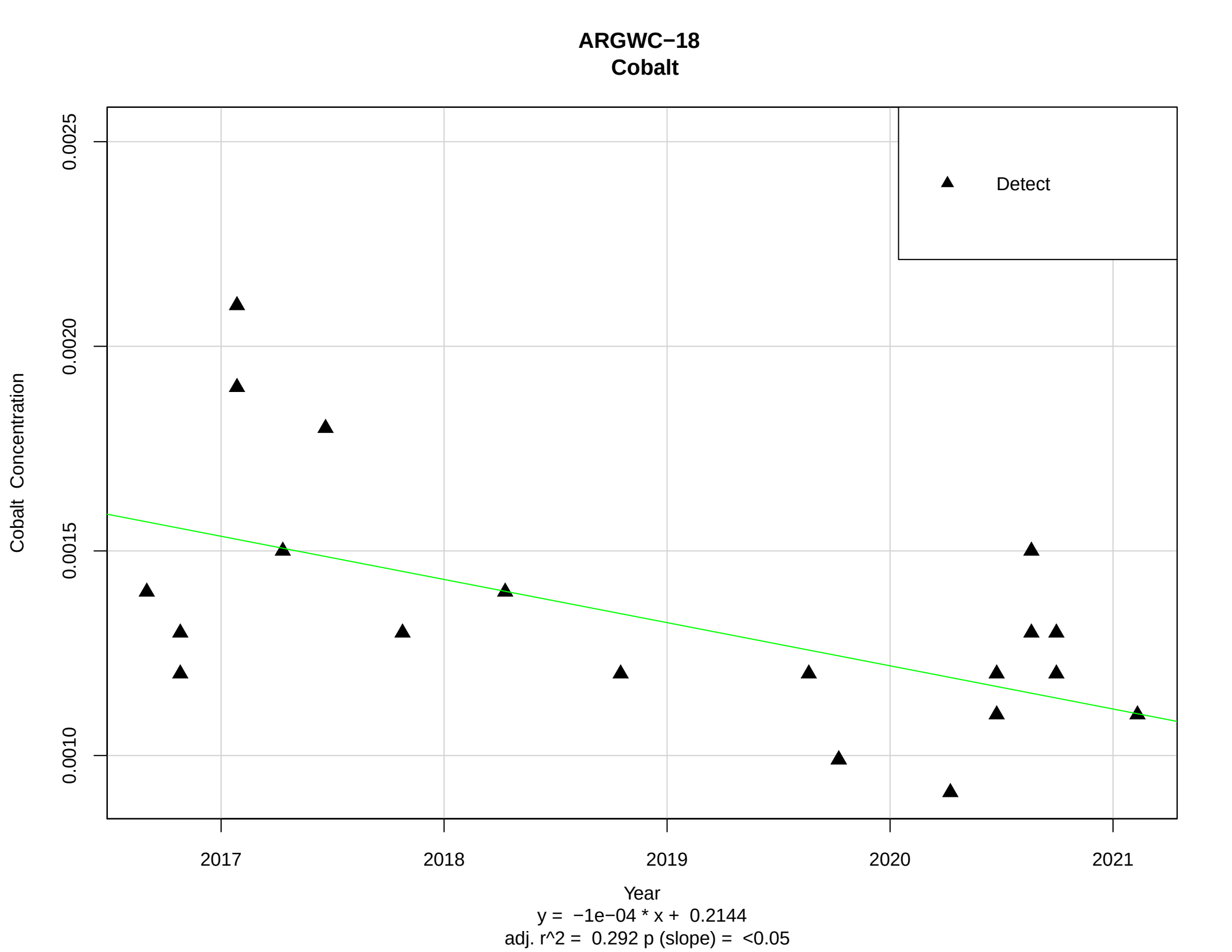

ARGWC−9
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2686
adj. r^2 = 0.467 p (slope) = <0.05

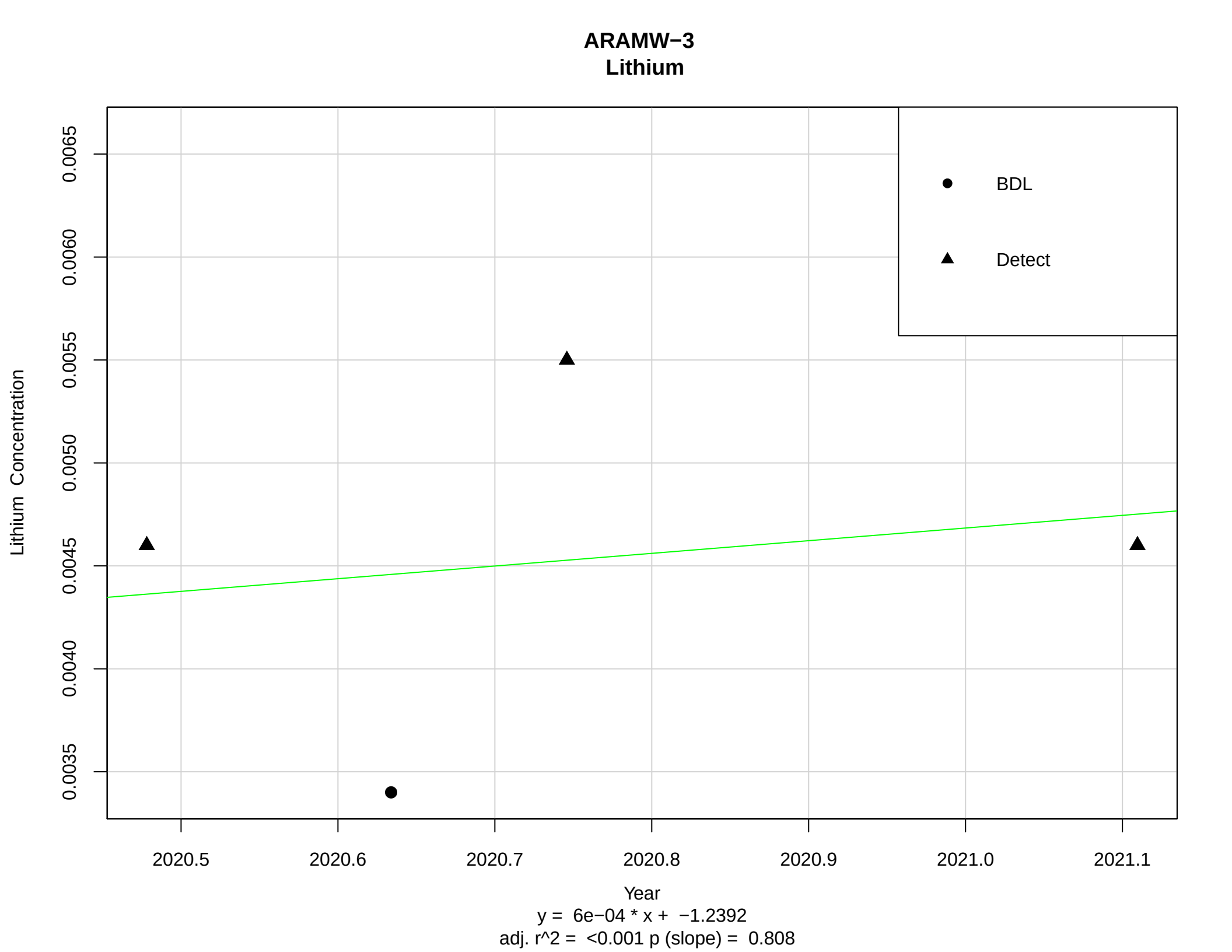

ARGWC−10
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2793
adj. r^2 = 0.471 p (slope) = <0.05

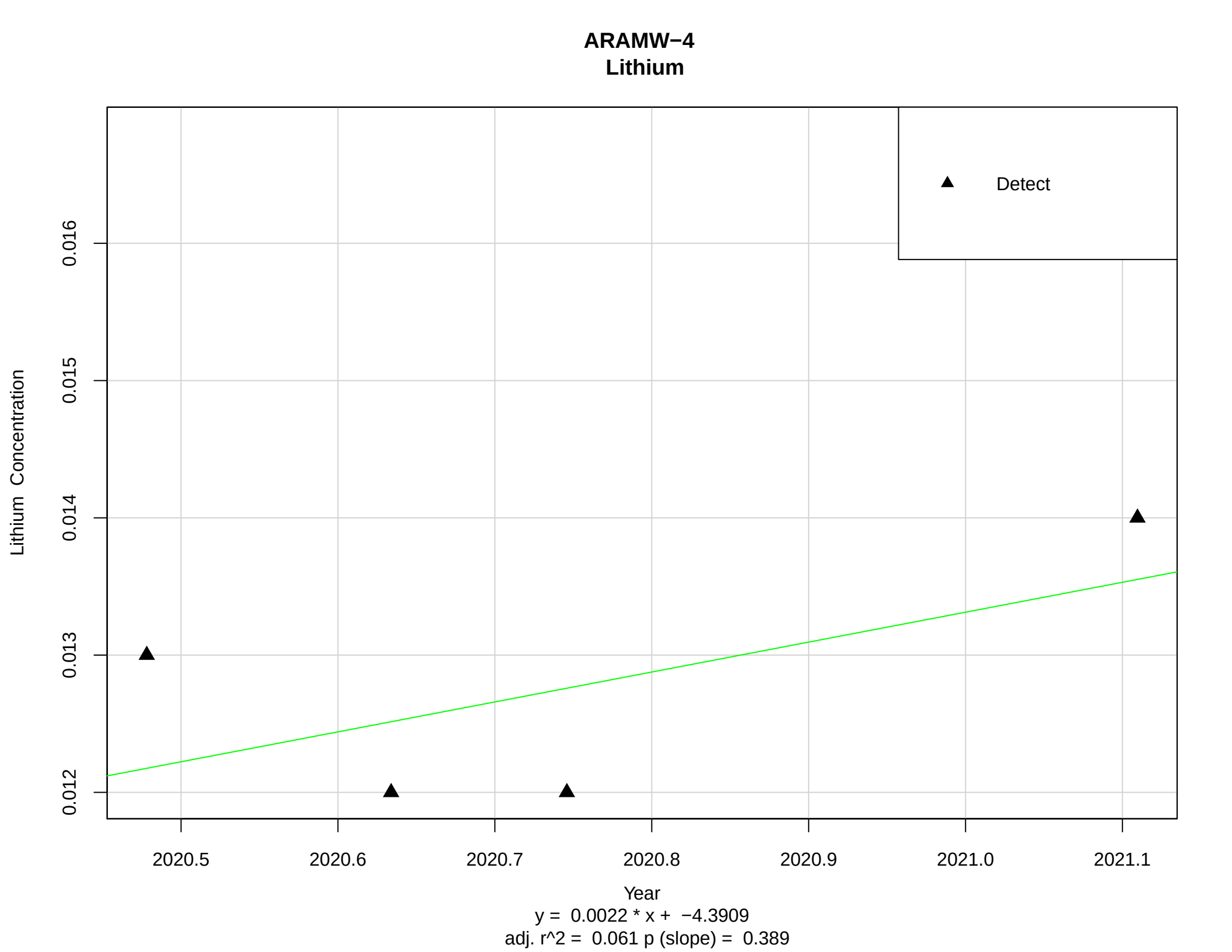

ARGWC−15
Cobalt
BDL
Detect
Cobalt Concentration
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
2017
2018
2019
2020
2021
Year
y = −0.0024 * x + 4.8454
adj. r^2 = 0.223 p (slope) = <0.05

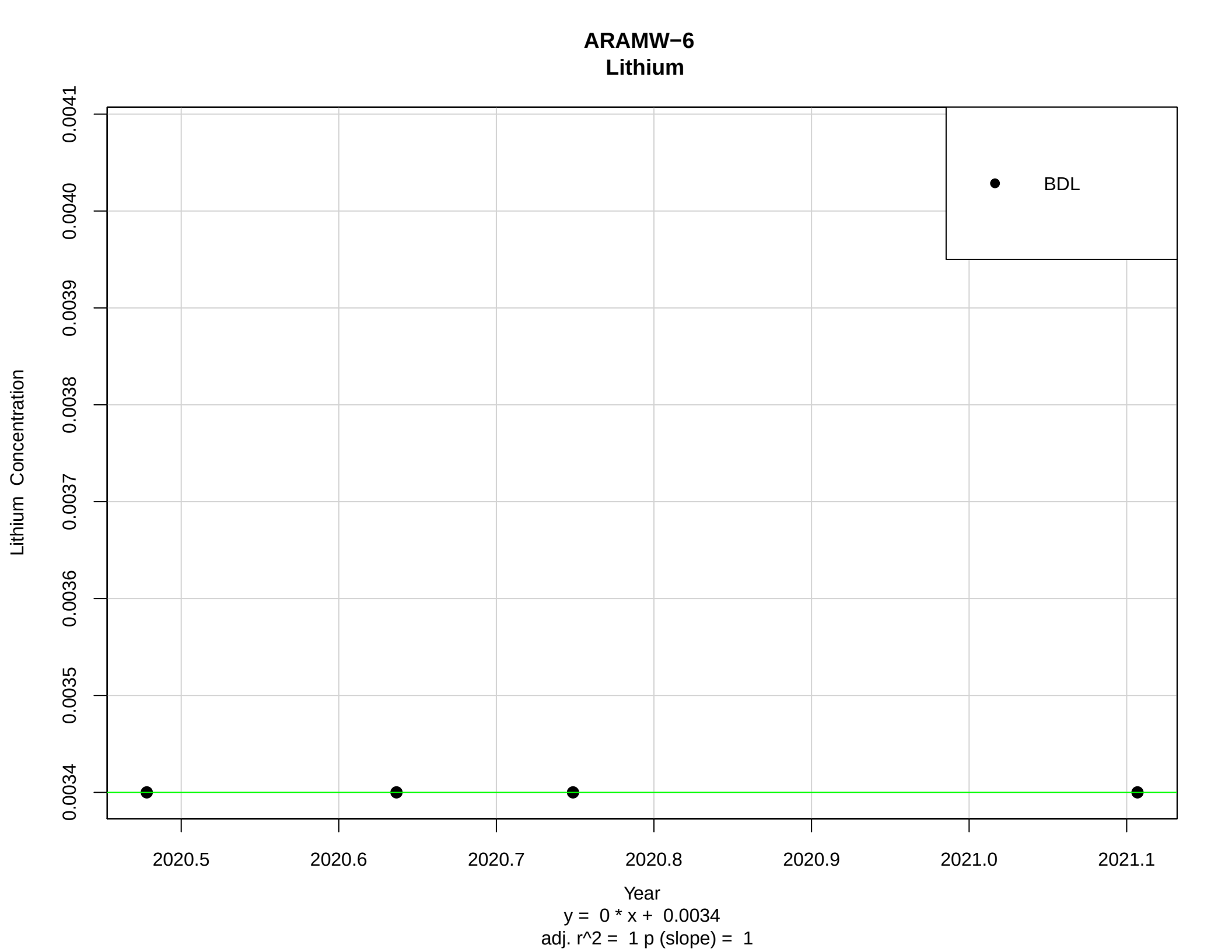

ARGWC−16
Cobalt
Cobalt Concentration
0.000
0.002
0.004
0.006
0.008
0.010
0.012
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0011 * x + 2.2772
adj. r^2 = 0.471 p (slope) = <0.05

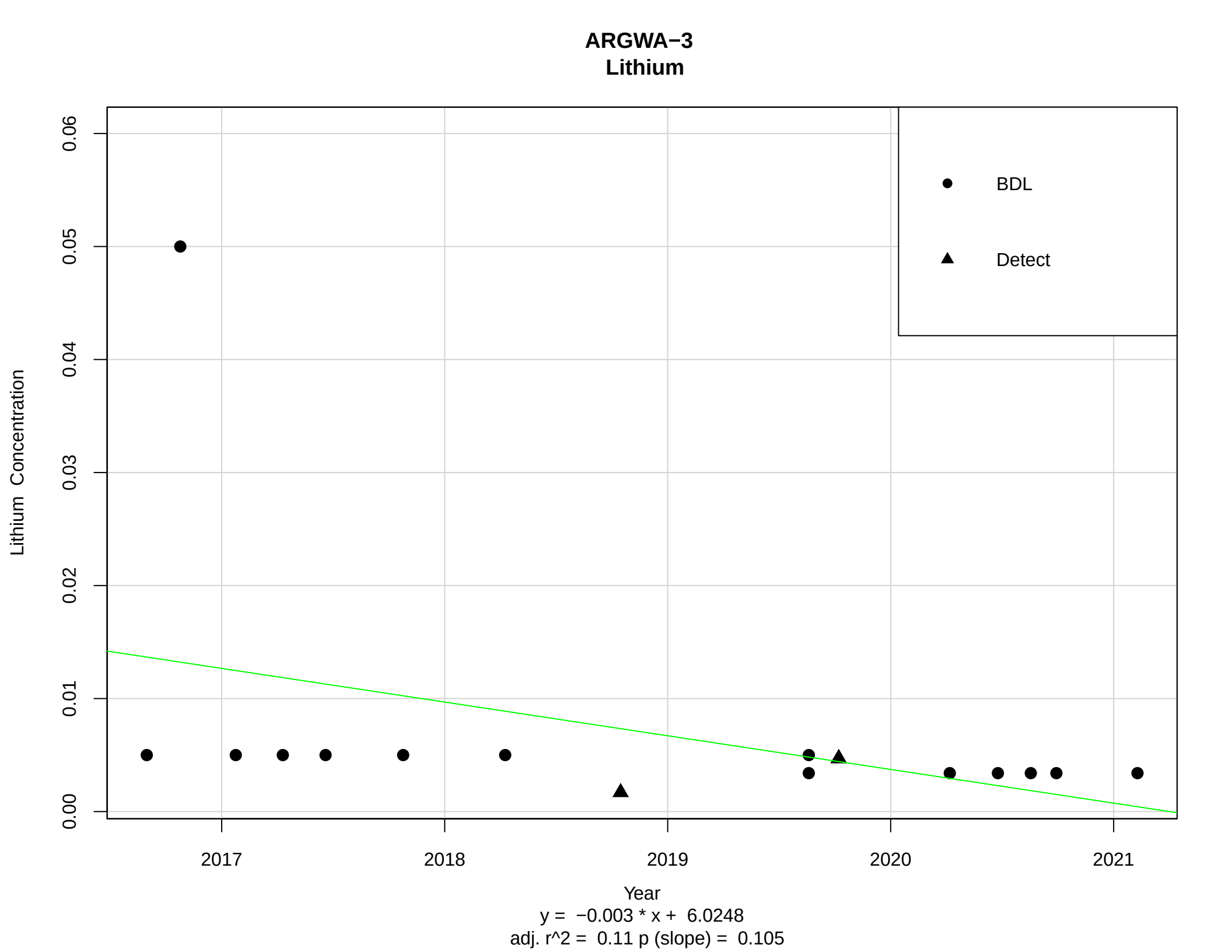

ARGWC−17
Cobalt
Detect
Cobalt Concentration
0.045
0.040
0.035
0.030
0.025
0.020
0.015
2017
2018
2019
2020
2021
Year
y = −3e−04 * x + 0.6405
adj. r^2 = <0.001 p (slope) = 0.784

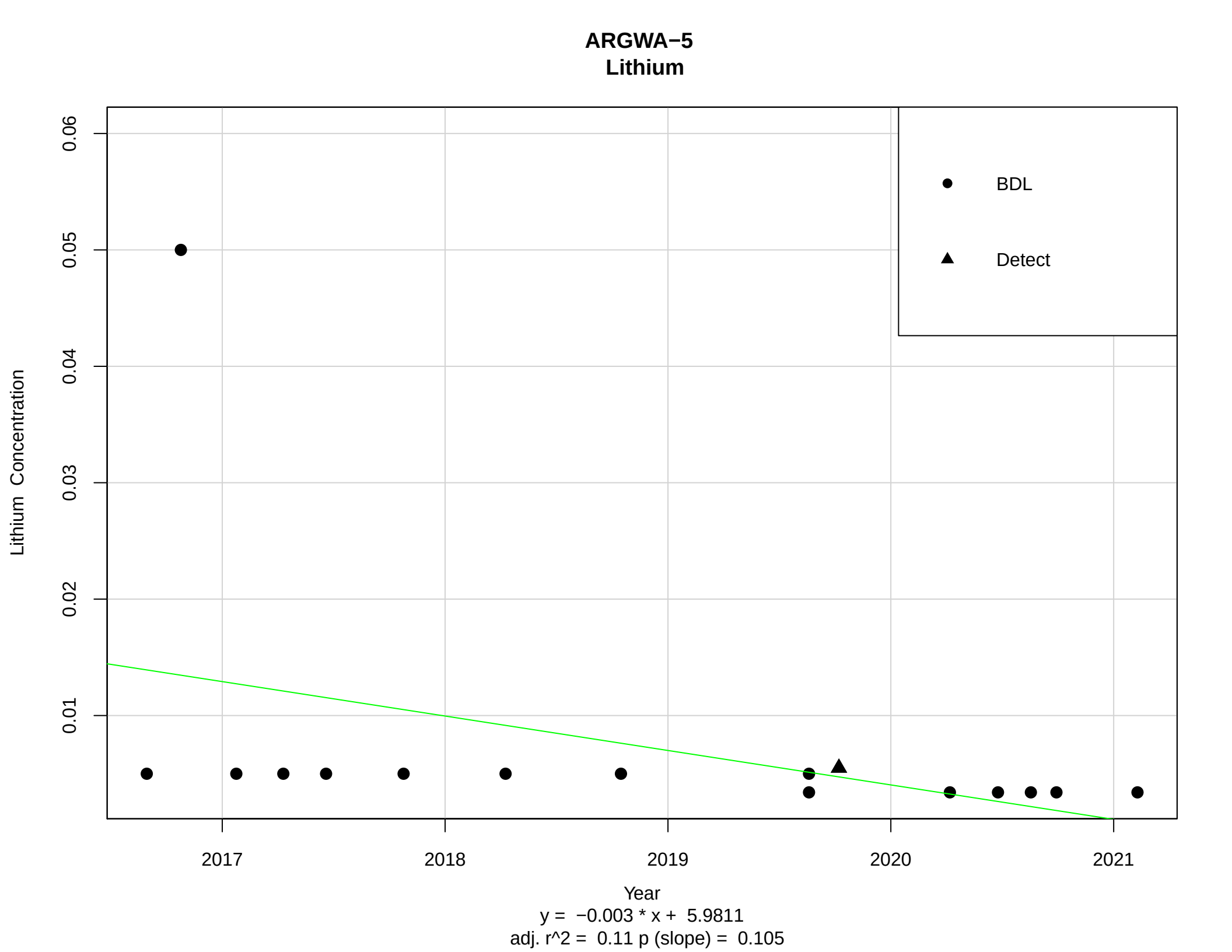

ARGWC−18
Cobalt
Detect
Cobalt Concentration
0.0025
0.0020
0.0015
0.0010
2017
2018
2019
2020
2021
Year
y = −1e−04 * x + 0.2144
adj. r^2 = 0.292 p (slope) = <0.05

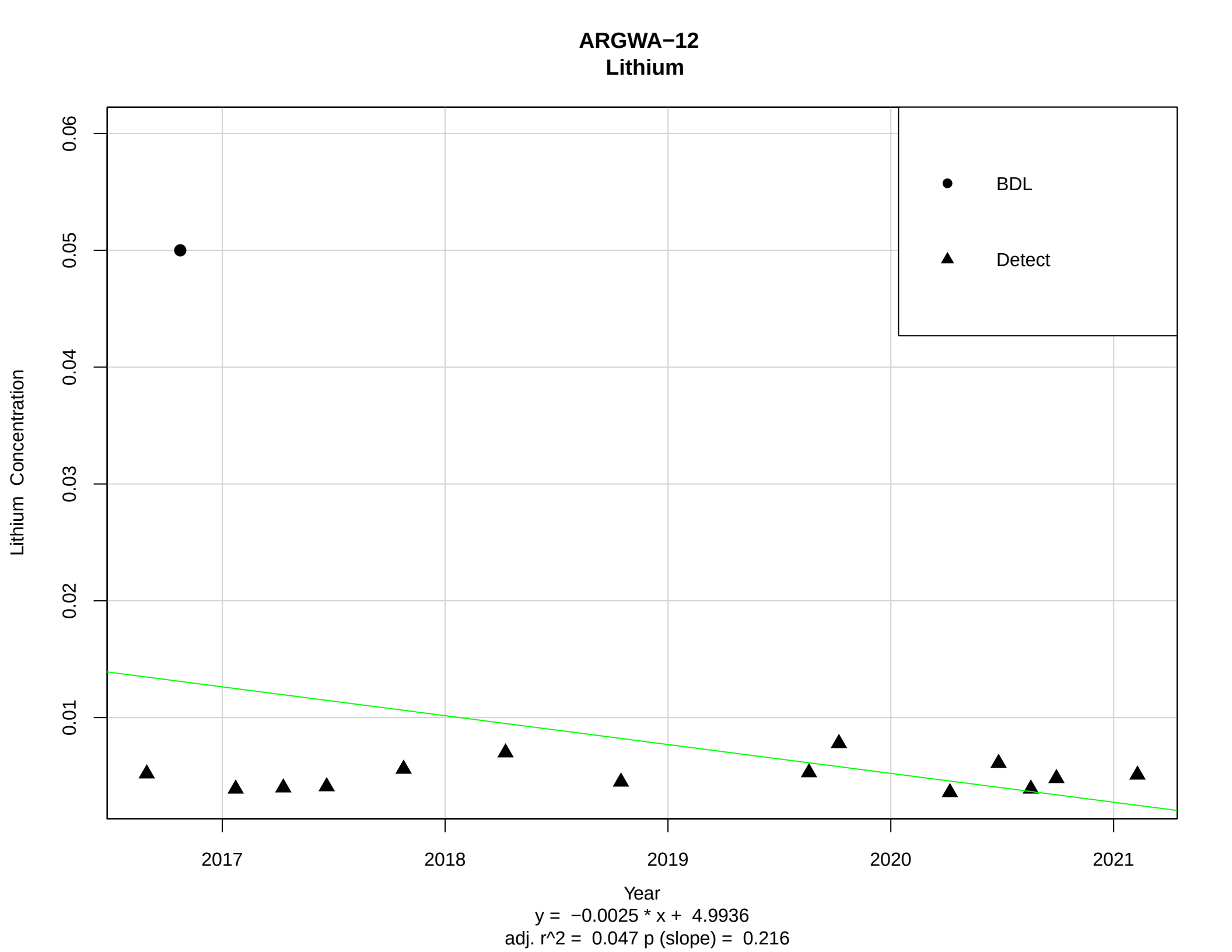

ARAMW−3
Lithium
BDL
Detect
Lithium Concentration
0.0035
0.0040
0.0045
0.0050
0.0055
0.0060
0.0065
2020.5
2020.6
2020.7
2020.8
2020.9
2021.0
2021.1
Year
y = 6e−04 * x + −1.2392
adj. r^2 = <0.001 p (slope) = 0.808

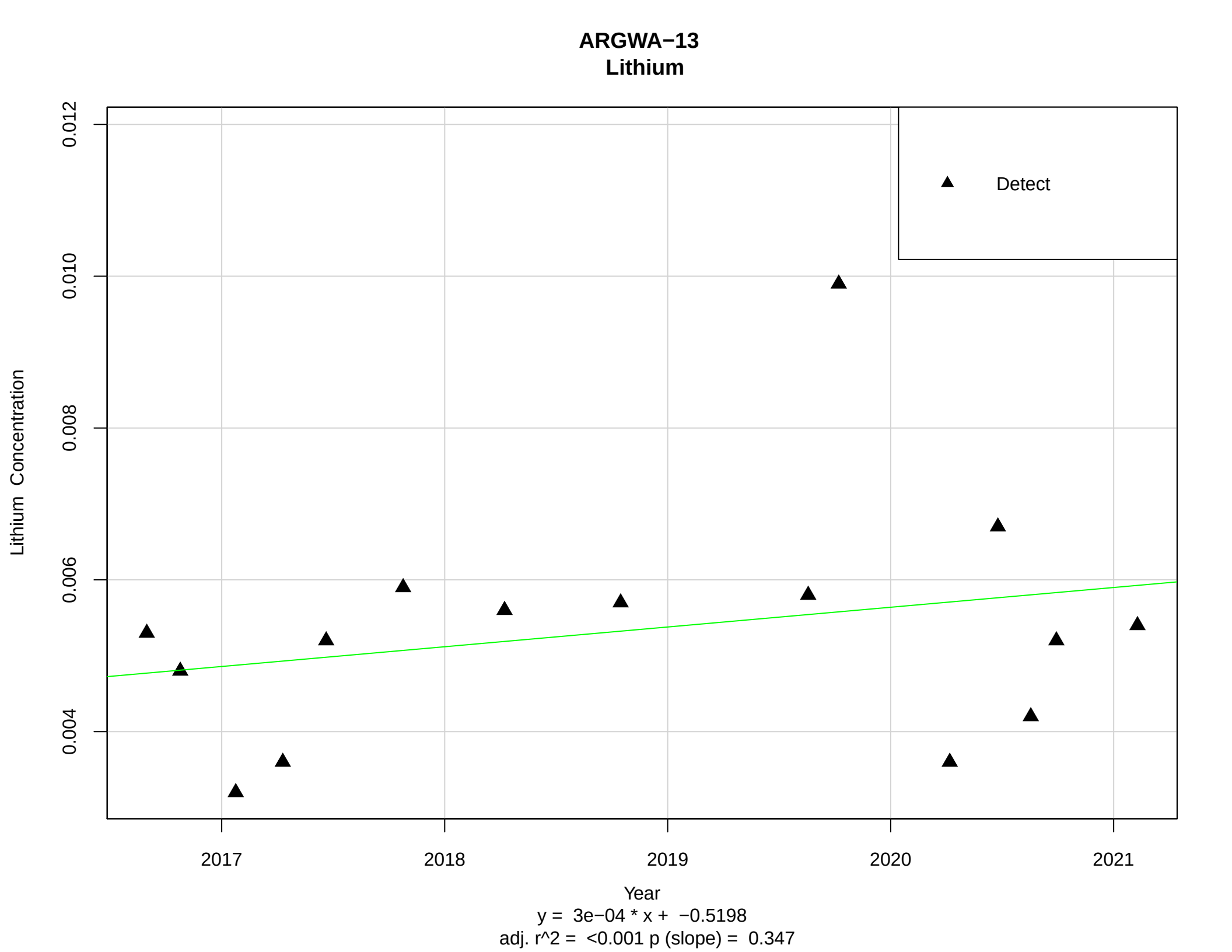

ARAMW−4
Lithium
Detect
Lithium Concentration
0.012
0.013
0.014
0.015
0.016
2020.5
2020.6
2020.7
2020.8
2020.9
2021.0
2021.1
Year
y = 0.0022 * x + −4.3909
adj. r^2 = 0.061 p (slope) = 0.389

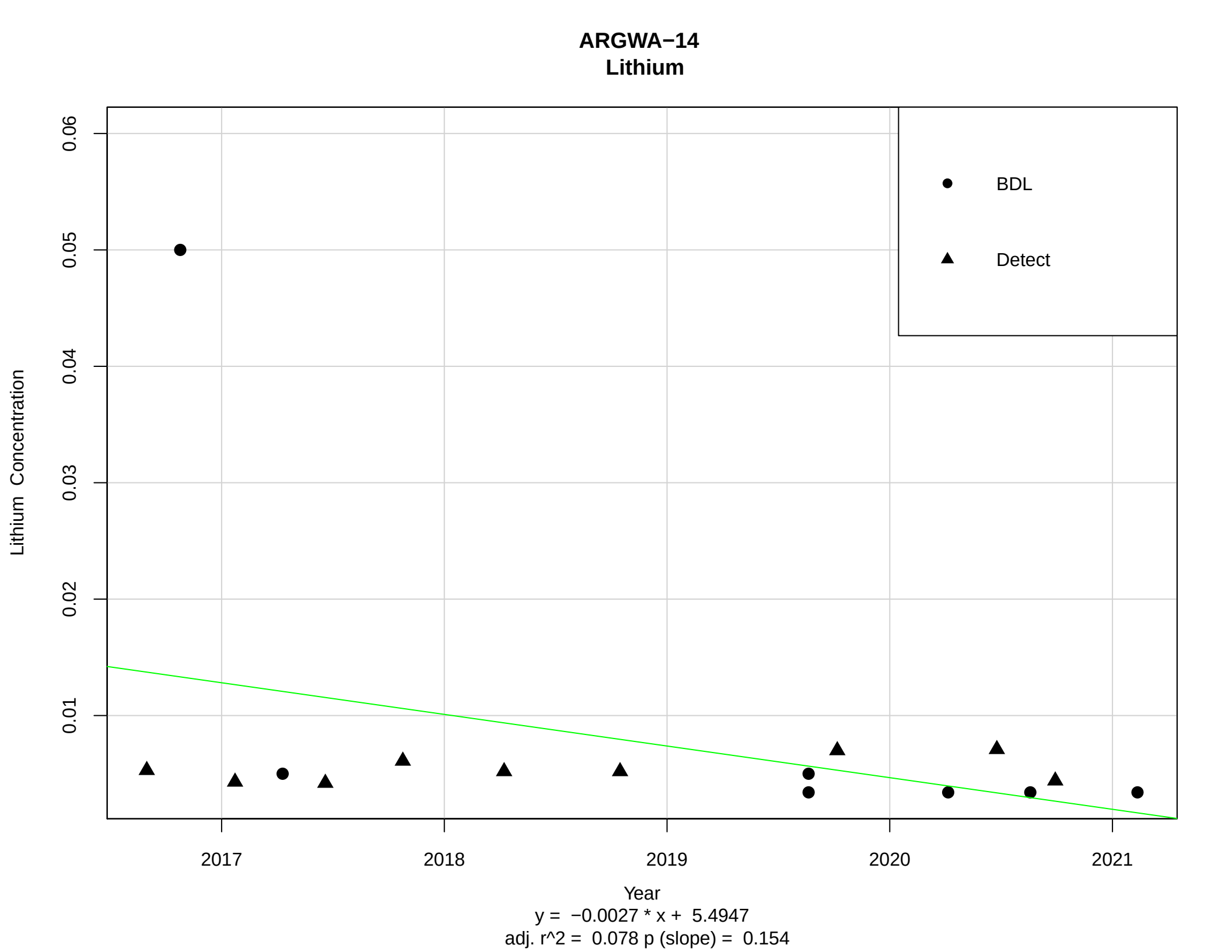

ARAMW−6
Lithium
Lithium Concentration
0.0041
0.0040
0.0039
0.0038
0.0037
0.0036
0.0035
0.0034
BDL
2020.5
2020.6
2020.7
2020.8
2020.9
2021.0
2021.1
Year
y = 0 * x + 0.0034
adj. r^2 = 1 p (slope) = 1

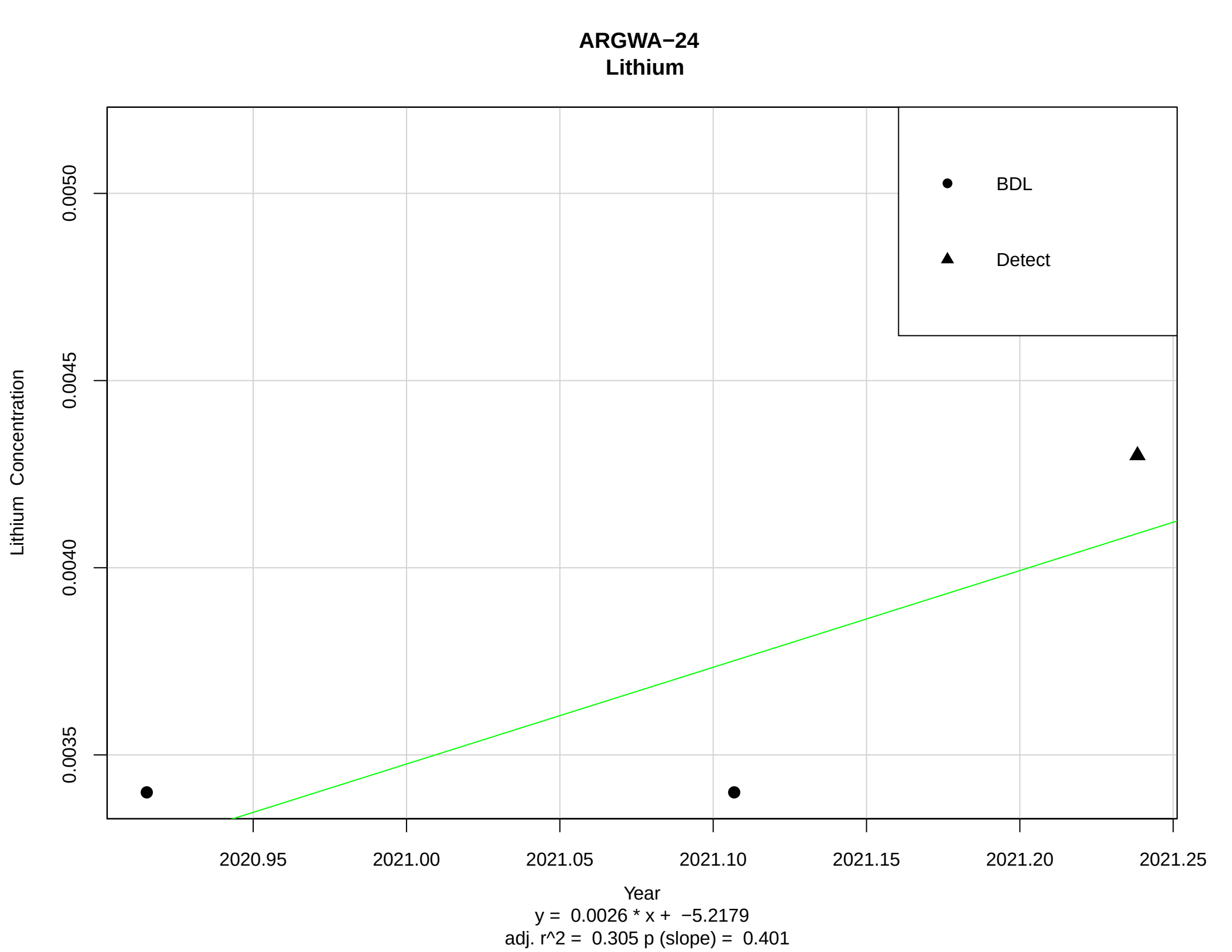

ARGWA−3
Lithium
BDL
Detect
Lithium Concentration
0.00
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
y = −0.003 * x + 6.0248
adj. r^2 = 0.11 p (slope) = 0.105

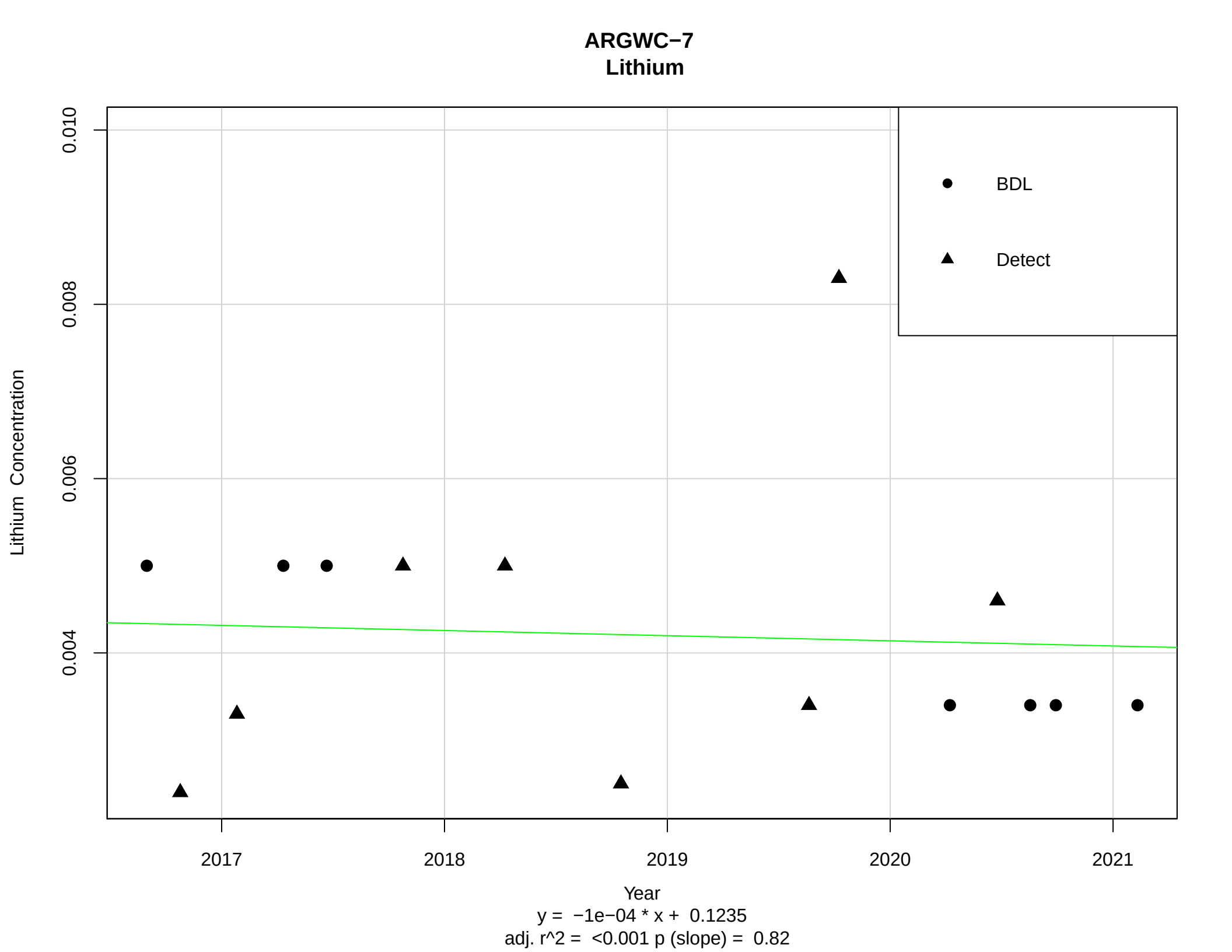

ARGWA−5
Lithium
BDL
Detect
Lithium Concentration
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
y = −0.003 * x + 5.9811
adj. r^2 = 0.11 p (slope) = 0.105

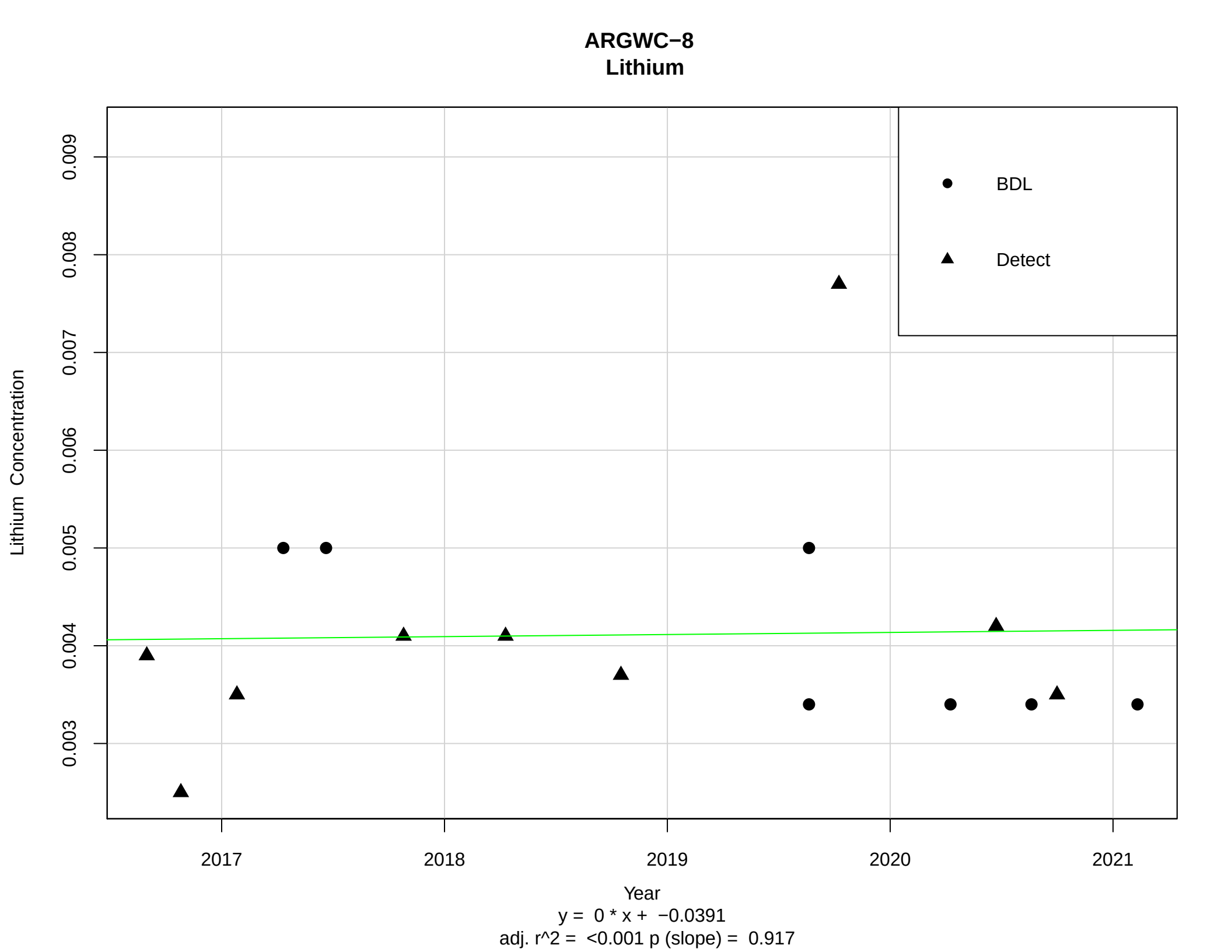

ARGWA−12
Lithium
BDL
Detect
Lithium Concentration
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
y = −0.0025 * x + 4.9936
adj. r^2 = 0.047 p (slope) = 0.216

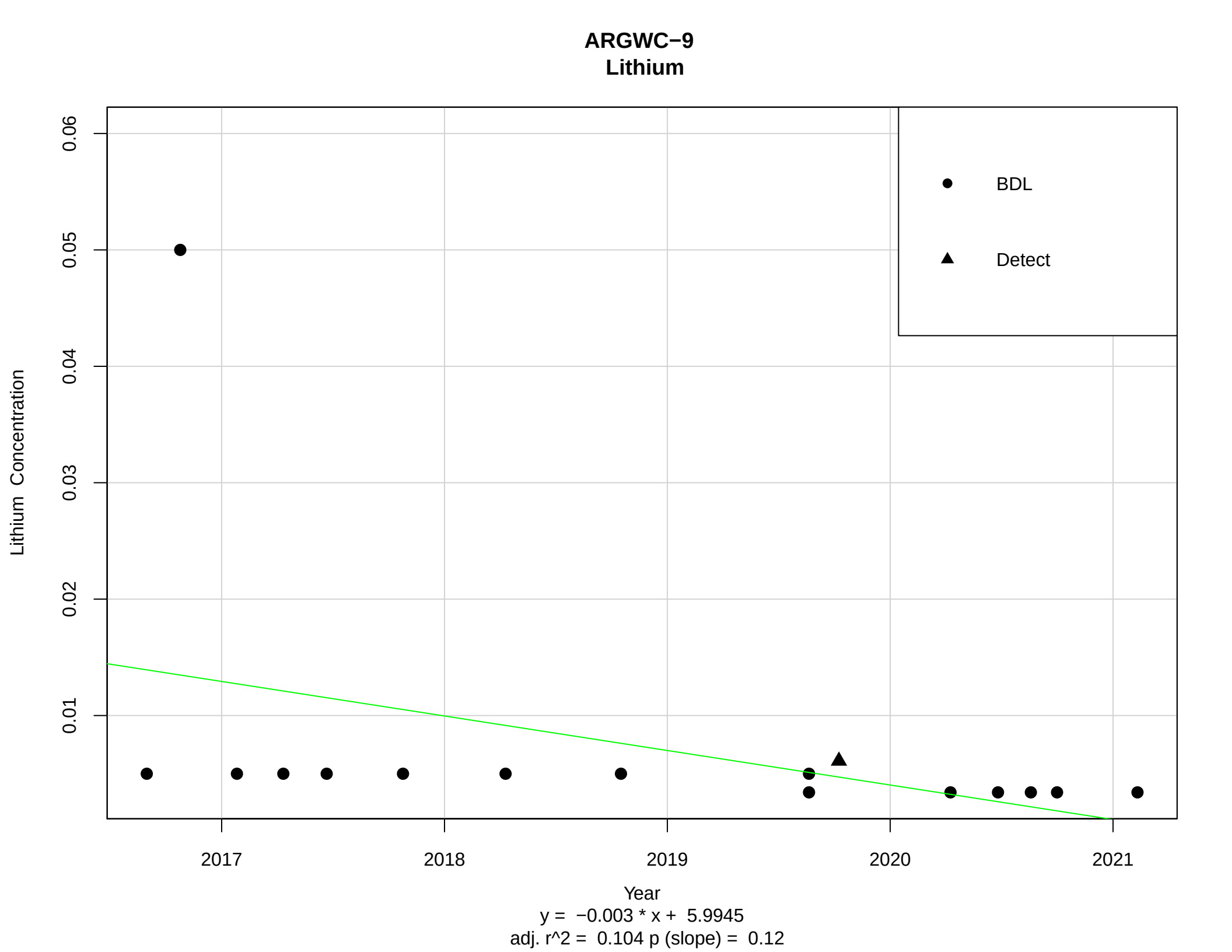

ARGWA−13
Lithium
Detect
0.012
0.010
0.008
0.006
0.004
Lithium Concentration
2017
2018
2019
2020
2021
Year
y = 3e−04 * x + −0.5198
adj. r^2 = <0.001 p (slope) = 0.347

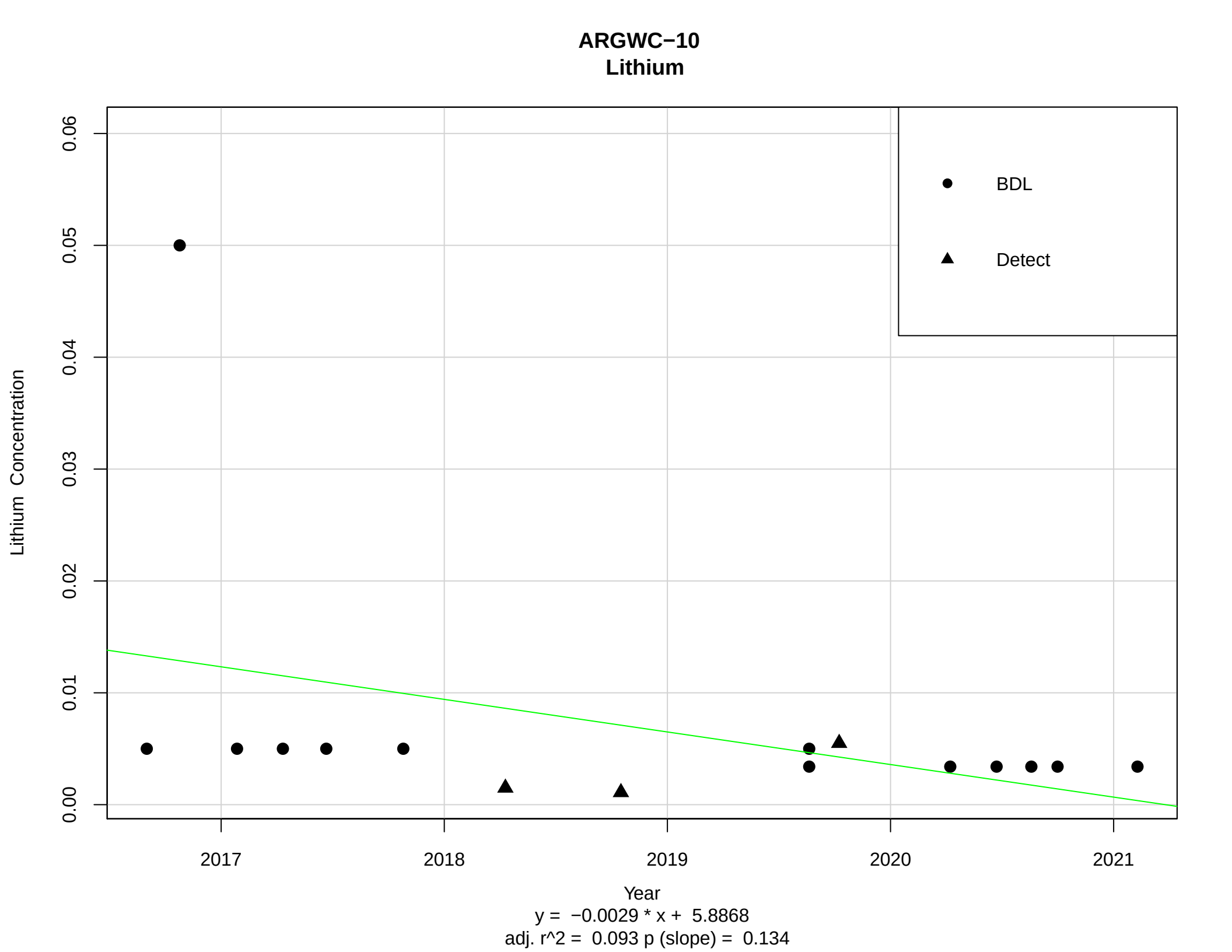

ARGWA−14
Lithium
Lithium Concentration
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0027 * x + 5.4947
adj. r^2 = 0.078 p (slope) = 0.154

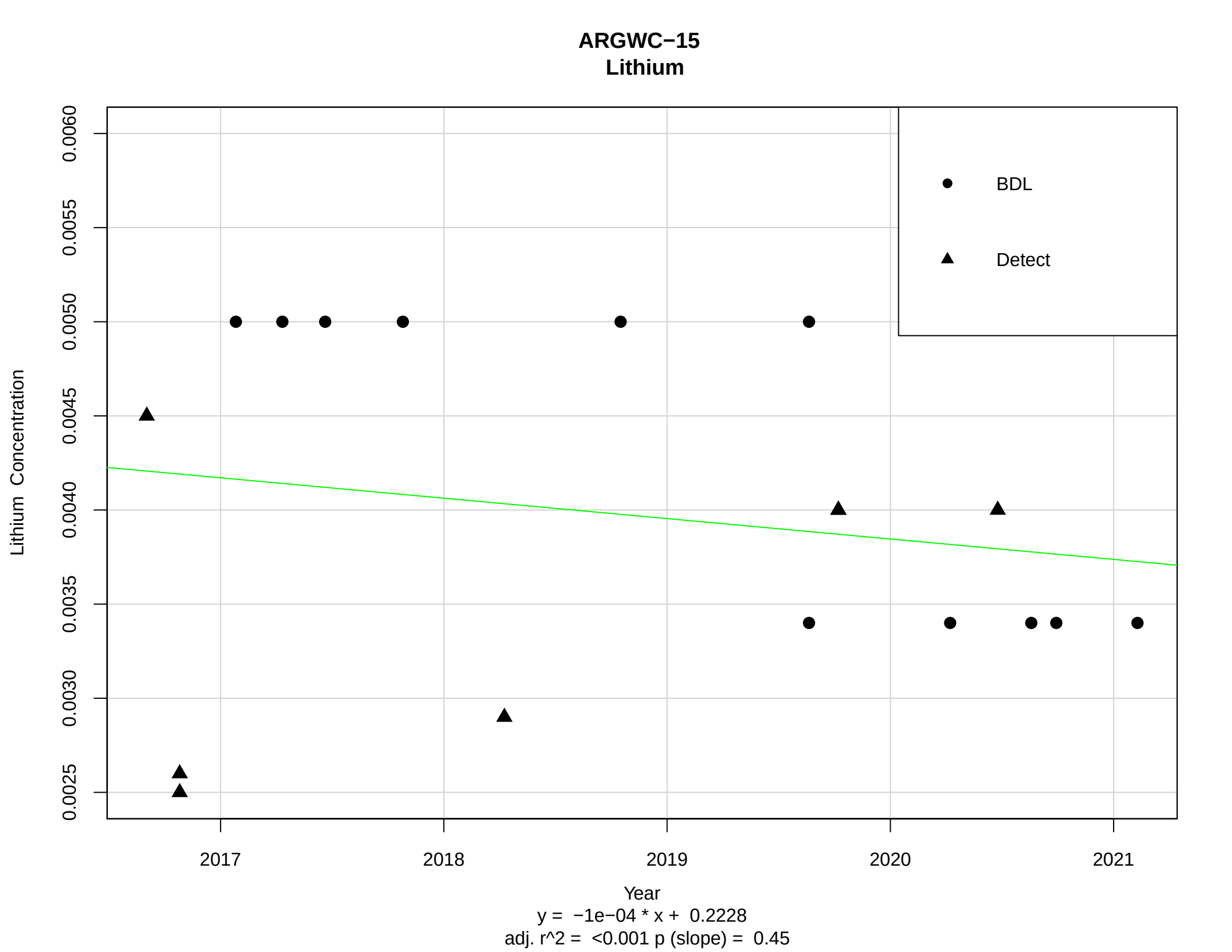

ARGWA−24
Lithium
BDL
Detect
Lithium Concentration
0.0035
0.0040
0.0045
0.0050
2020.95
2021.00
2021.05
2021.10
2021.15
2021.20
2021.25
Year
y = 0.0026 * x + −5.2179
adj. r^2 = 0.305 p (slope) = 0.401

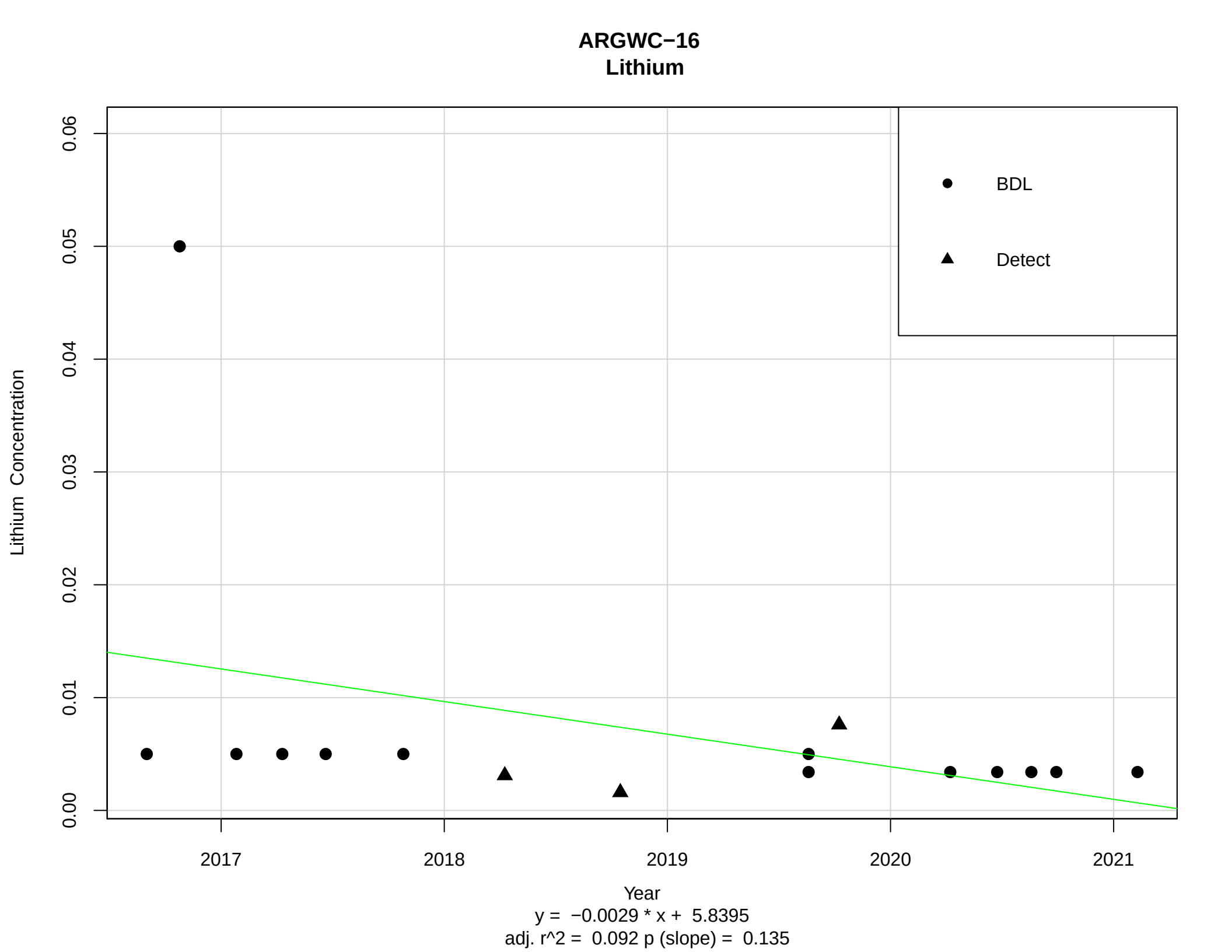

ARGWC−7
Lithium
0.010
0.008
0.006
0.004
Lithium Concentration
BDL
Detect
2017
2018
2019
2020
2021
Year
y = −1e−04 * x + 0.1235
adj. r^2 = <0.001 p (slope) = 0.82

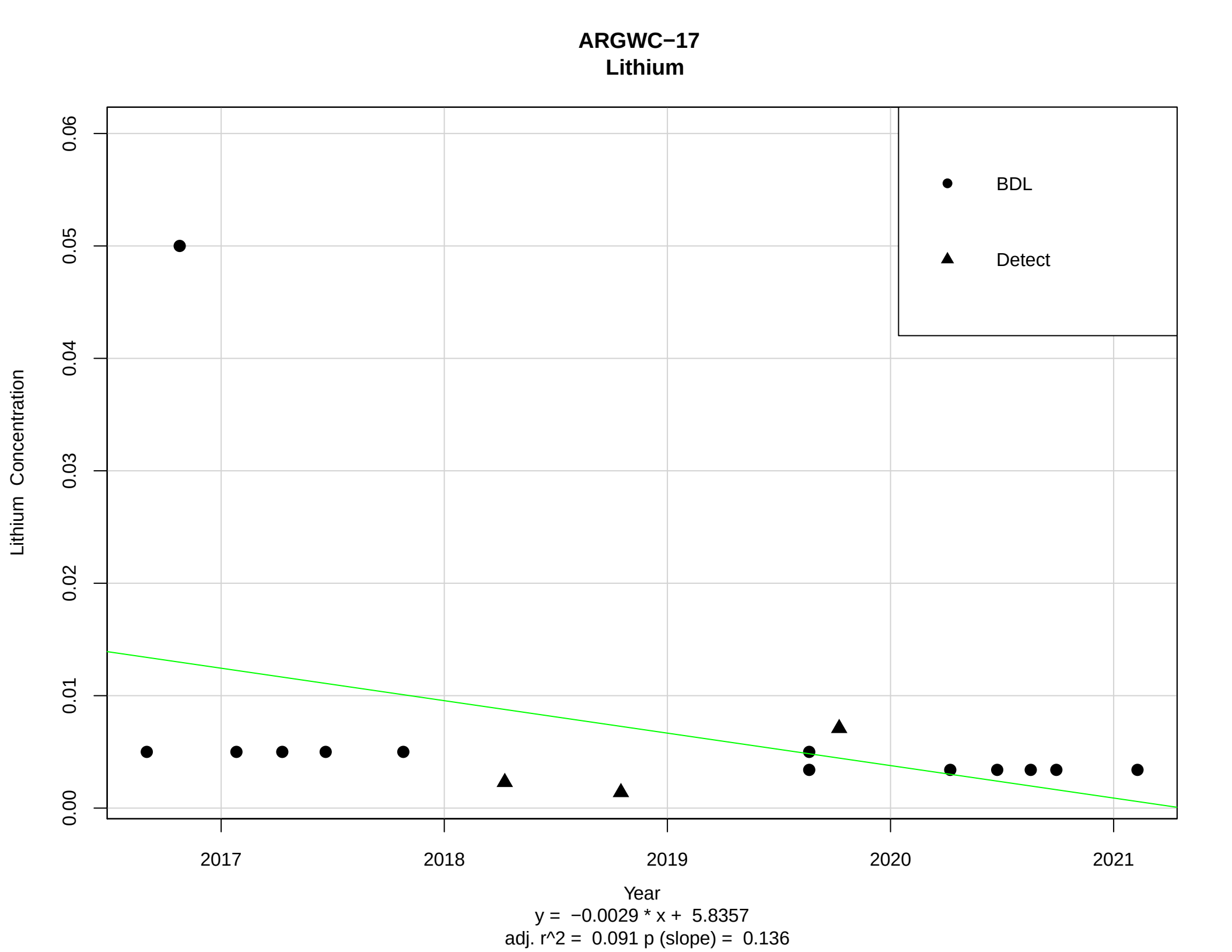

ARGWC−8
Lithium
BDL
Detect
Lithium Concentration
0.003
0.004
0.005
0.006
0.007
0.008
0.009
2017
2018
2019
2020
2021
Year
y = 0 * x + −0.0391
adj. r^2 = <0.001 p (slope) = 0.917

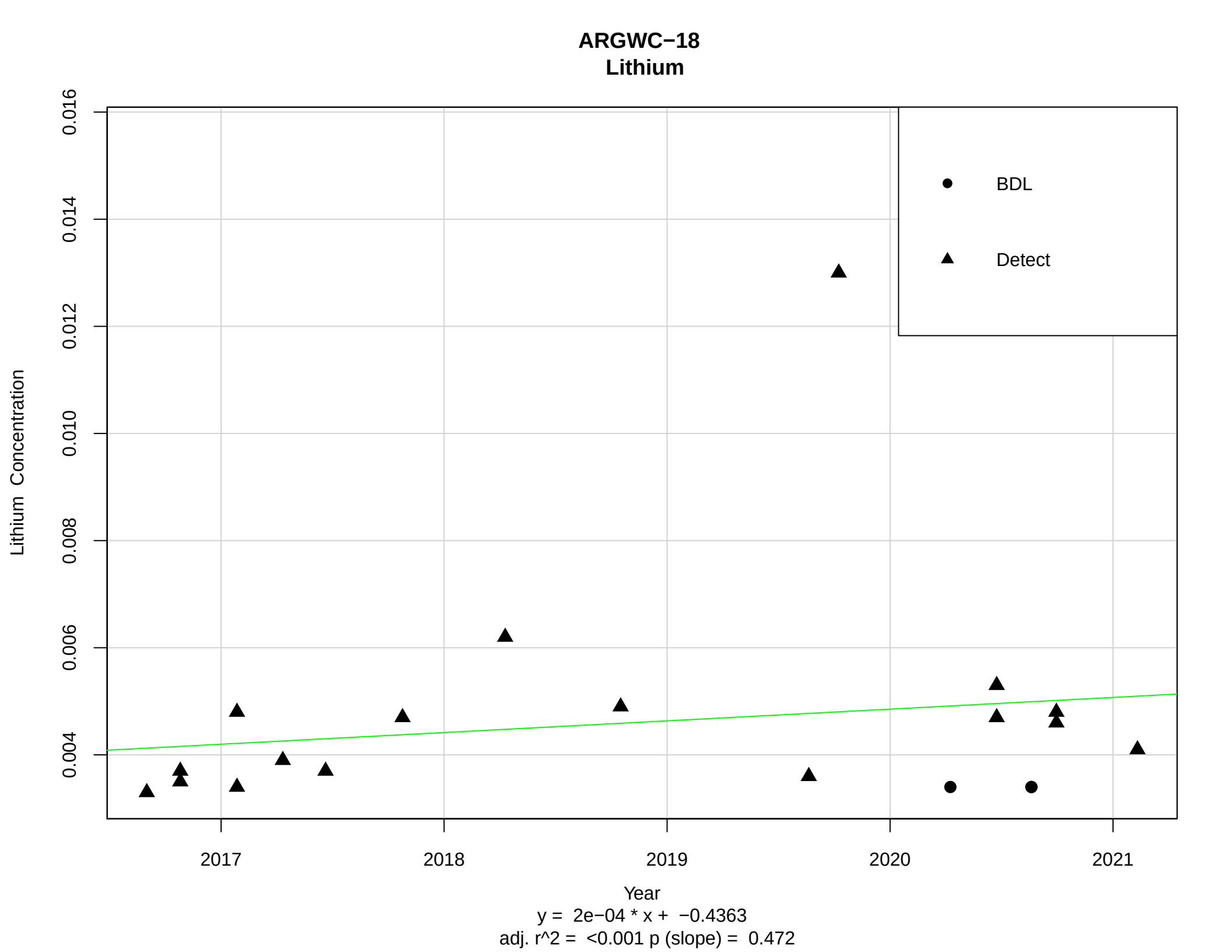

ARGWC−9
Lithium
BDL
Detect
Lithium Concentration
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
y = −0.003 * x + 5.9945
adj. r^2 = 0.104 p (slope) = 0.12

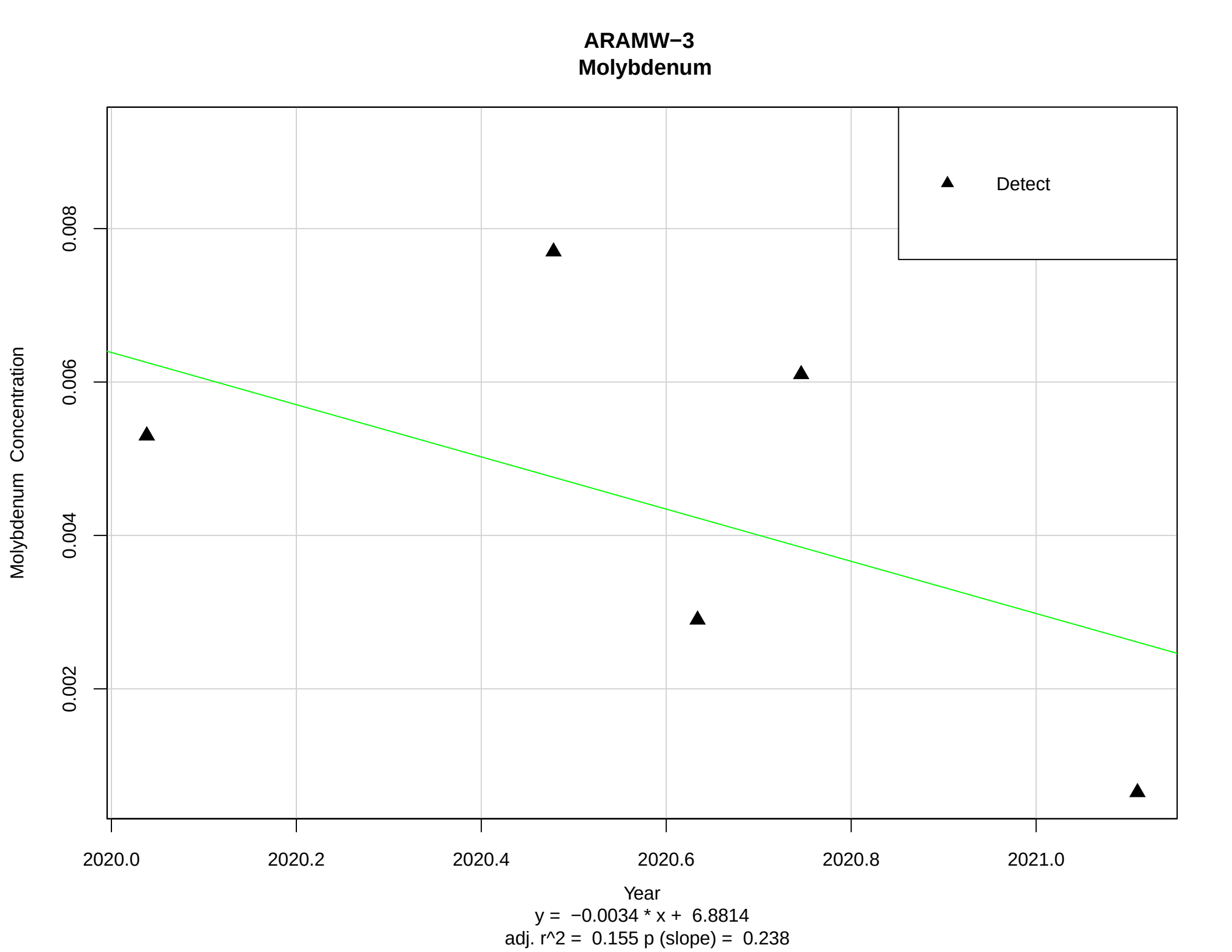

ARGWC−10
Lithium
Lithium Concentration
0.00
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0029 * x + 5.8868
adj. r^2 = 0.093 p (slope) = 0.134

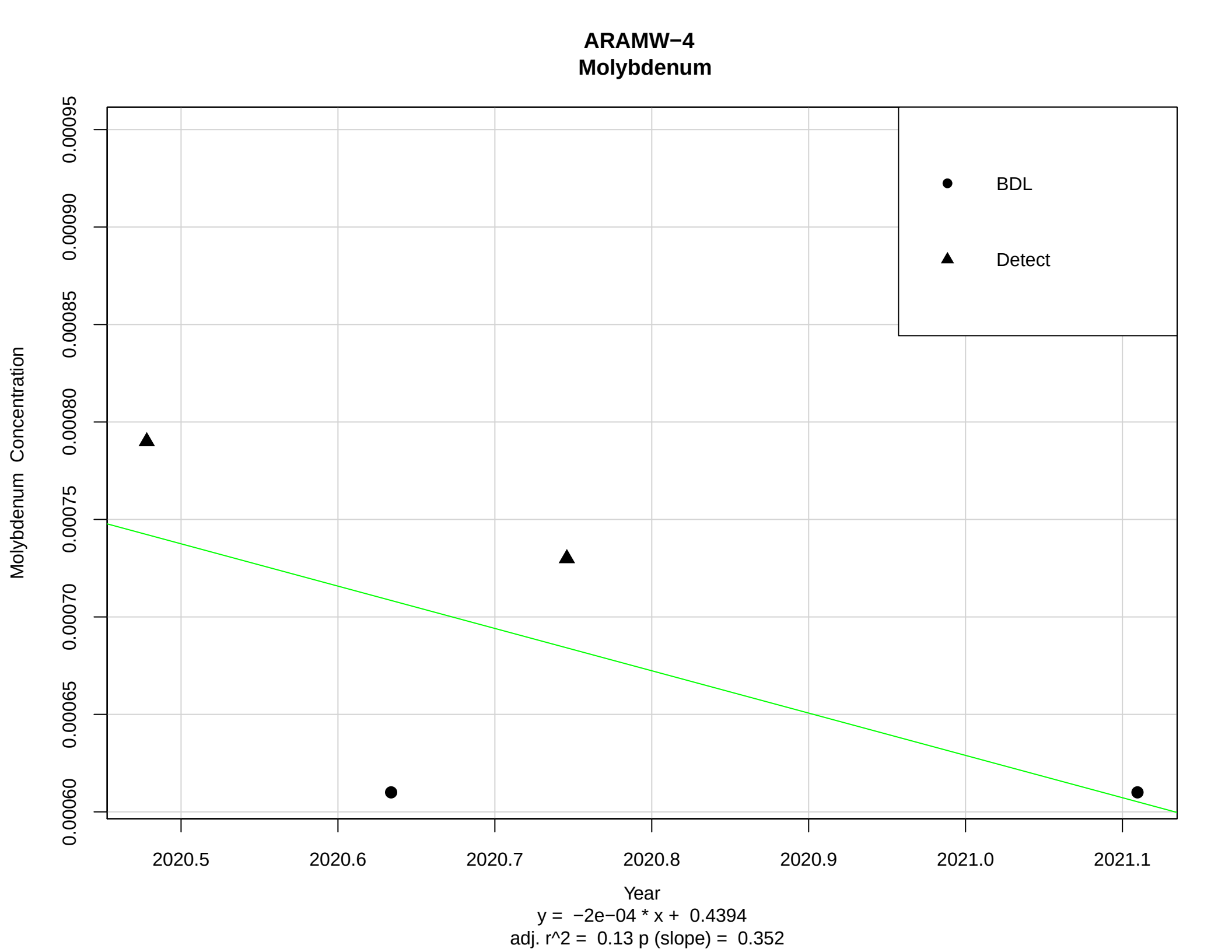

ARGWC−15
Lithium
Lithium Concentration
0.0025
0.0030
0.0035
0.0040
0.0045
0.0050
0.0055
0.0060
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −1e−04 * x + 0.2228
adj. r^2 = <0.001 p (slope) = 0.45

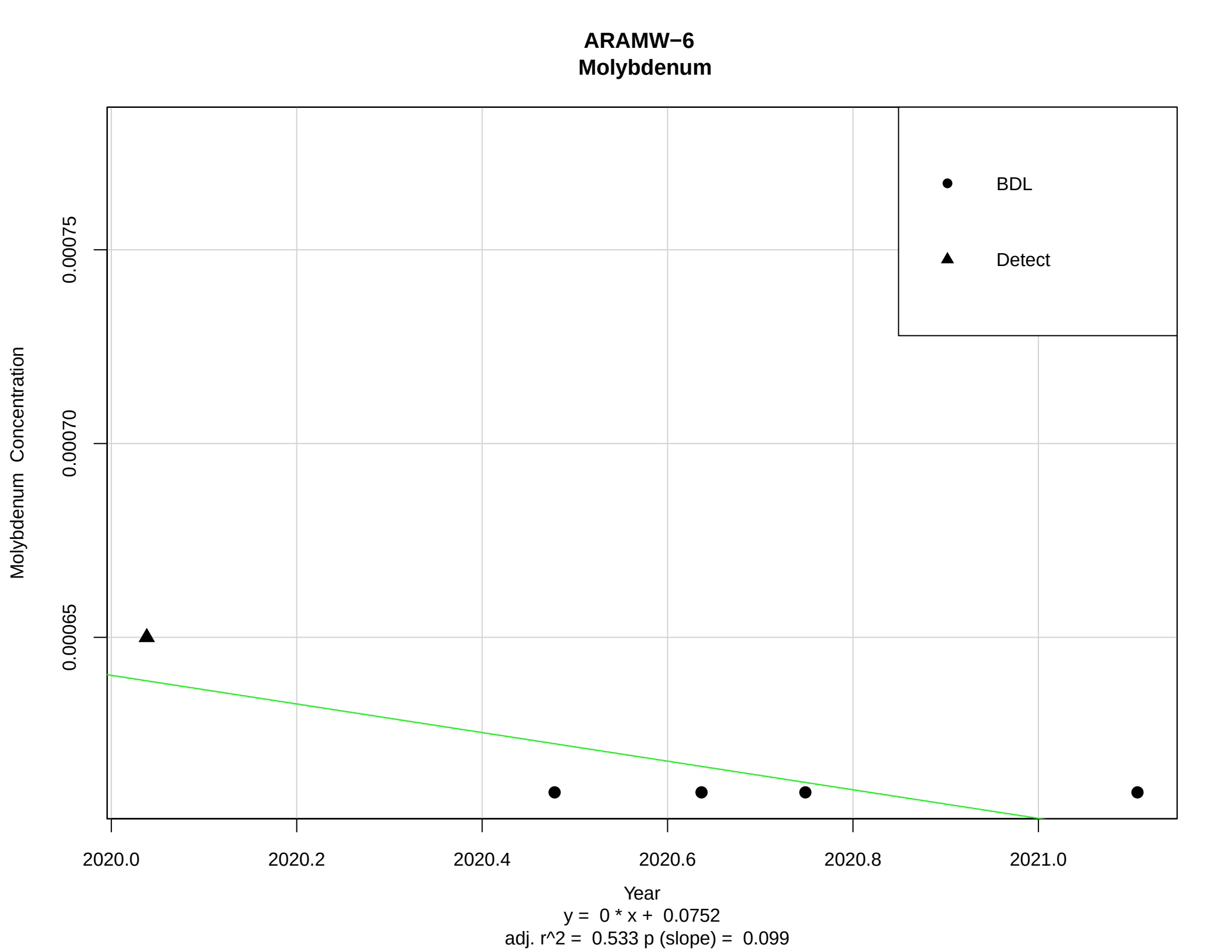

ARGWC−16
Lithium
BDL
Detect
Lithium Concentration
0.00
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
y = −0.0029 * x + 5.8395
adj. r^2 = 0.092 p (slope) = 0.135

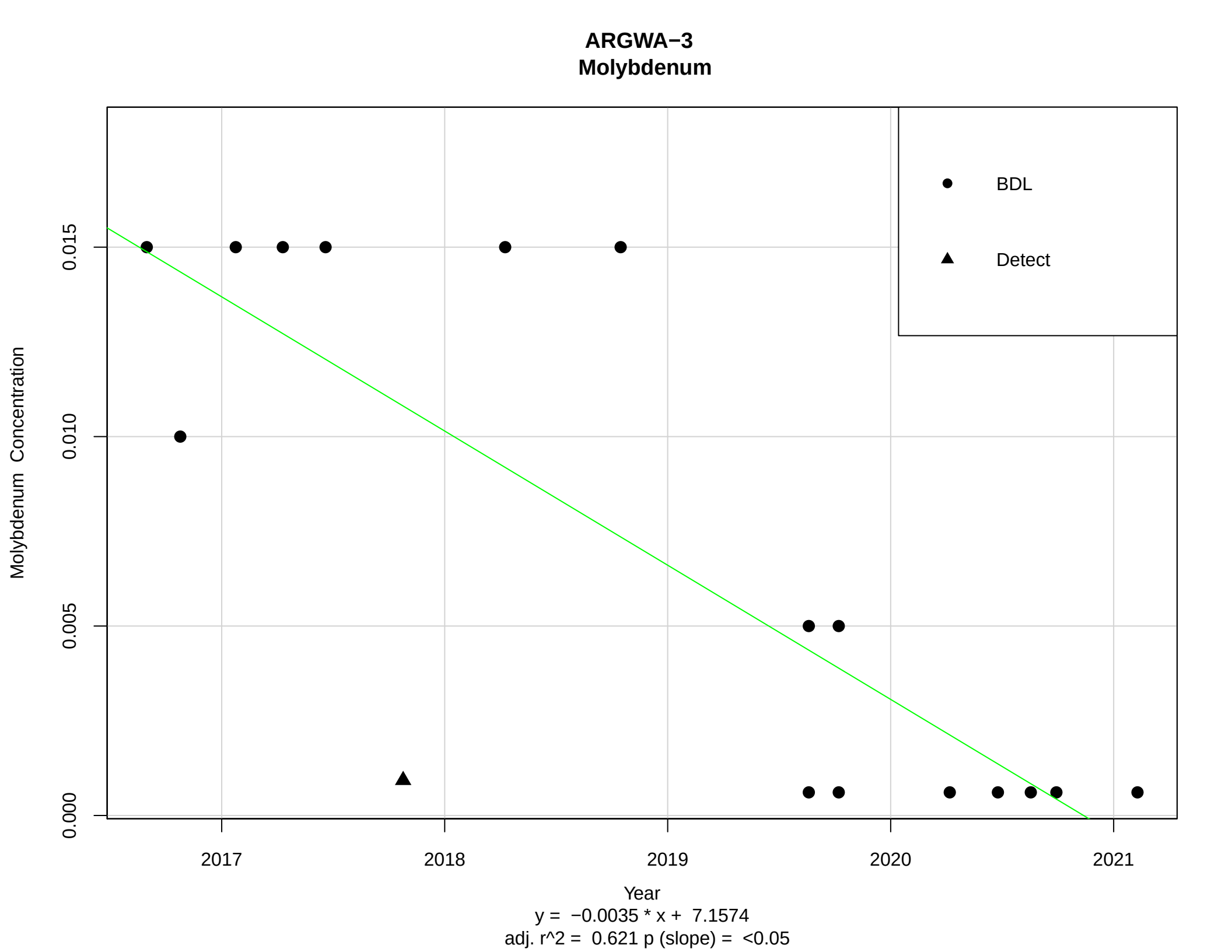

ARGWC−17
Lithium
Lithium Concentration
0.00
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
BDL
Detect
y = −0.0029 * x + 5.8357
adj. r^2 = 0.091 p (slope) = 0.136

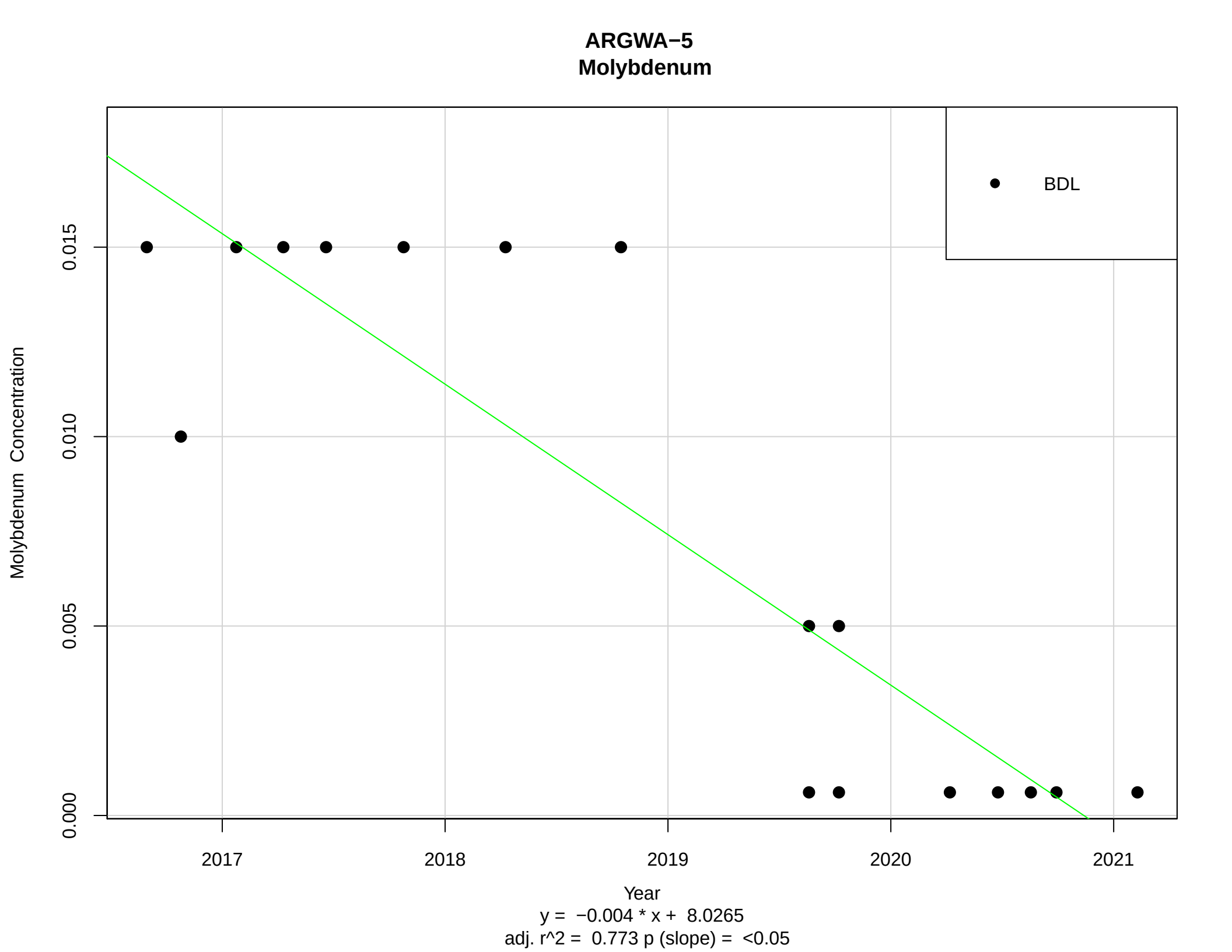

ARGWC−18
Lithium
Lithium Concentration
0.004
0.006
0.008
0.010
0.012
0.014
0.016
2017
2018
2019
2020
2021
Year
BDL
Detect
y = 2e−04 * x + −0.4363
adj. r^2 = <0.001 p (slope) = 0.472

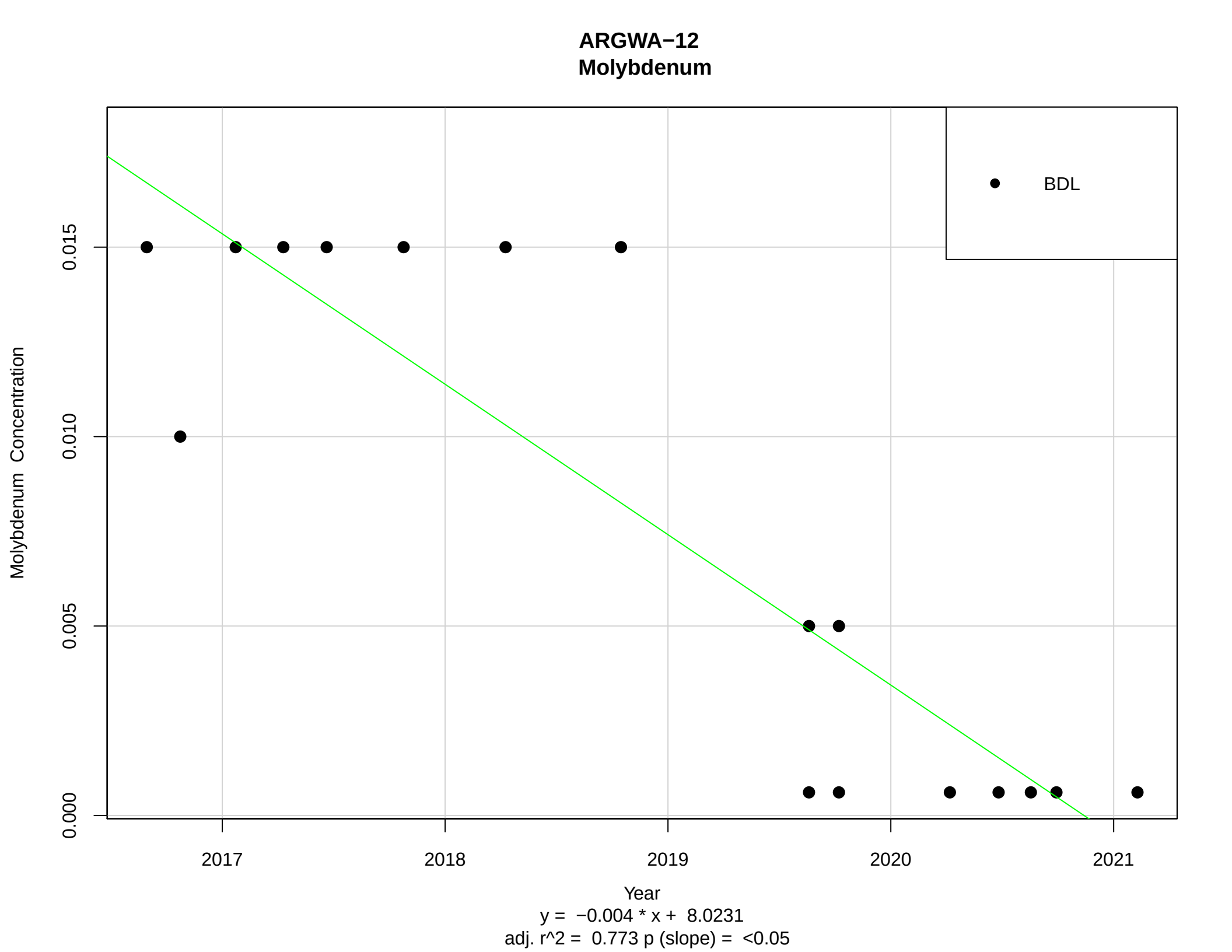

ARAMW−3
Molybdenum
Detect
Molybdenum Concentration
0.002
0.004
0.006
0.008
2020.0
2020.2
2020.4
2020.6
2020.8
2021.0
Year
y = −0.0034 * x + 6.8814
adj. r^2 = 0.155 p (slope) = 0.238

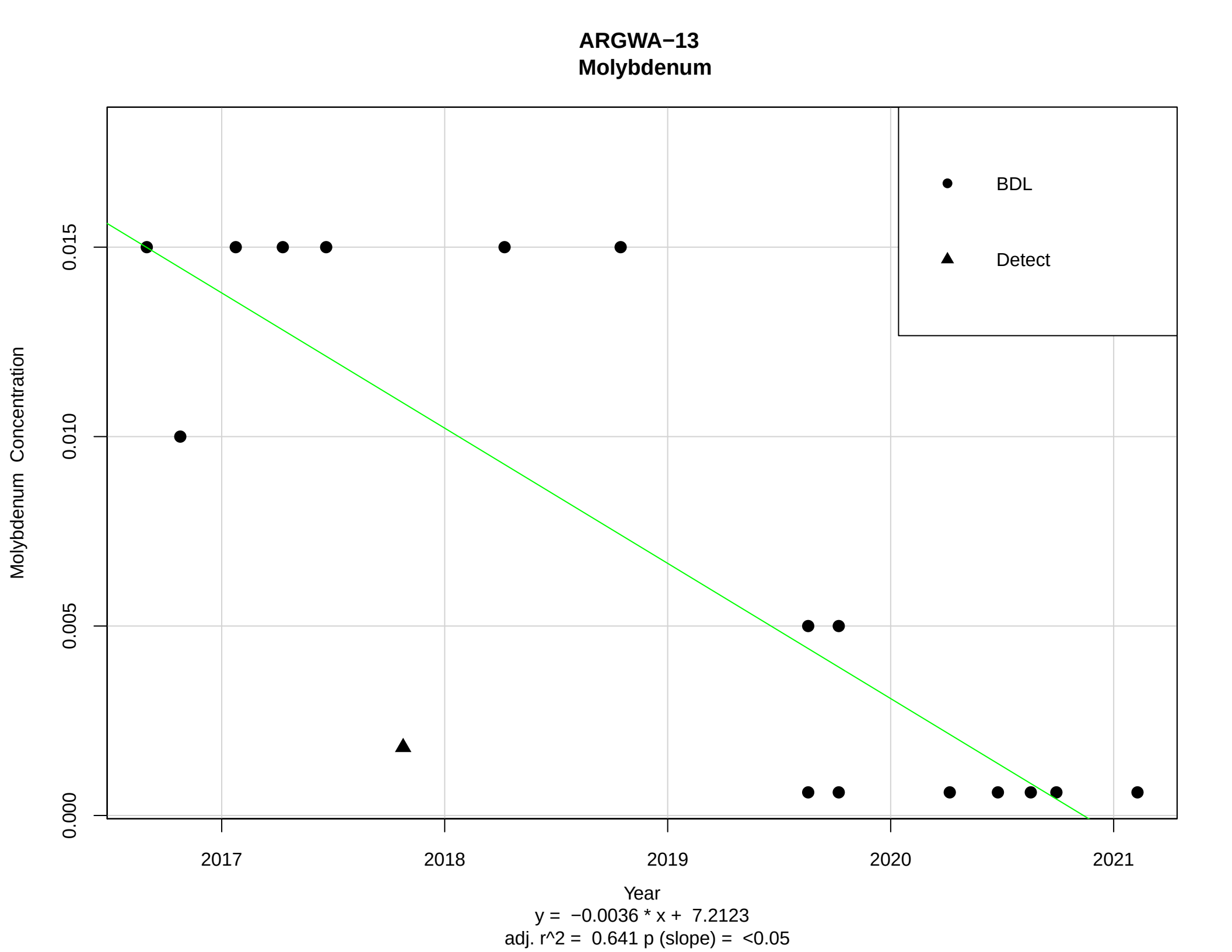

ARAMW−4
Molybdenum
Molybdenum Concentration
0.00060
0.00065
0.00070
0.00075
0.00080
0.00085
0.00090
0.00095
2020.5
2020.6
2020.7
2020.8
2020.9
2021.0
2021.1
Year
BDL
Detect
y = −2e−04 * x + 0.4394
adj. r^2 = 0.13 p (slope) = 0.352

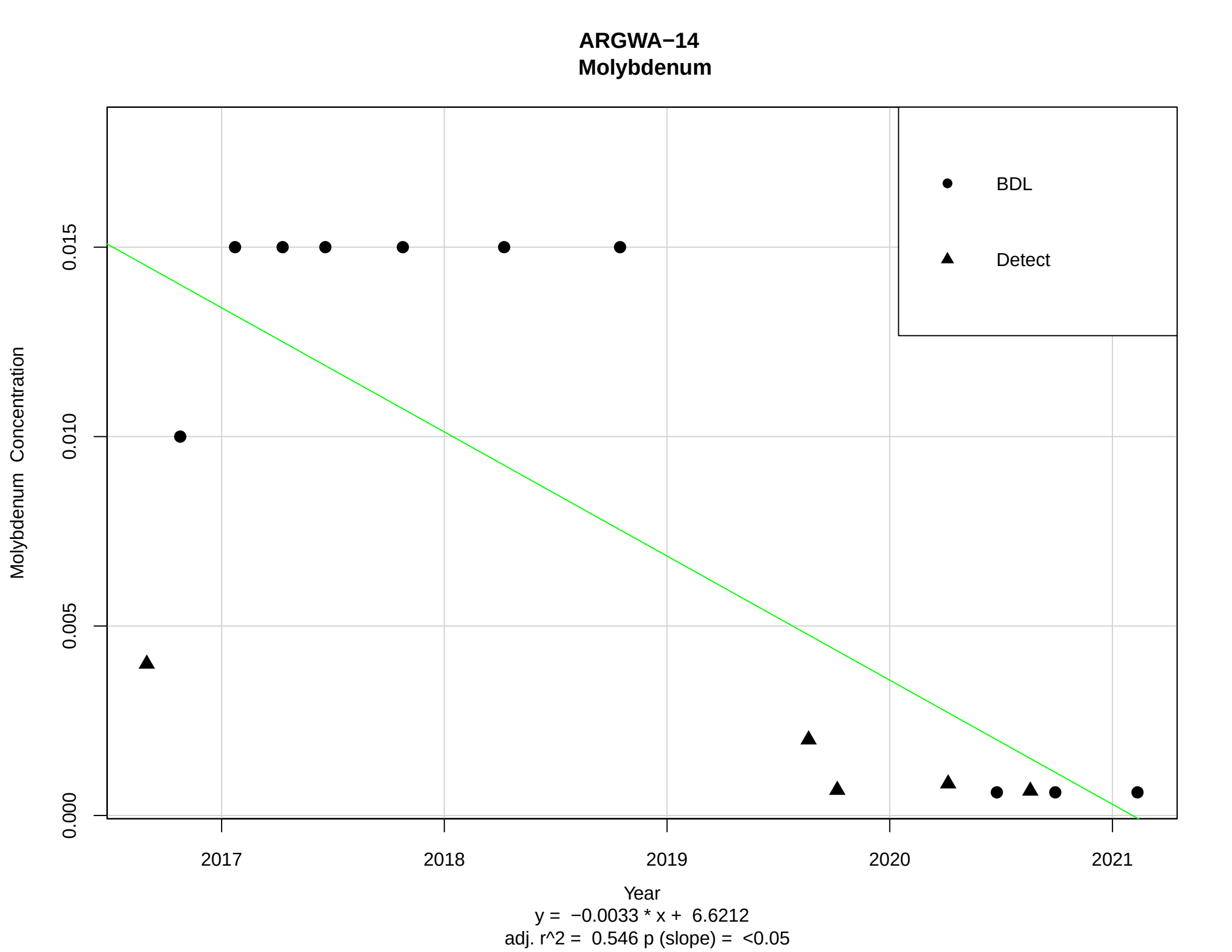

ARAMW−6
Molybdenum
BDL
Detect
Molybdenum Concentration
0.00075
0.00070
0.00065
2020.0
2020.2
2020.4
2020.6
2020.8
2021.0
Year
y = 0 * x + 0.0752
adj. r^2 = 0.533 p (slope) = 0.099

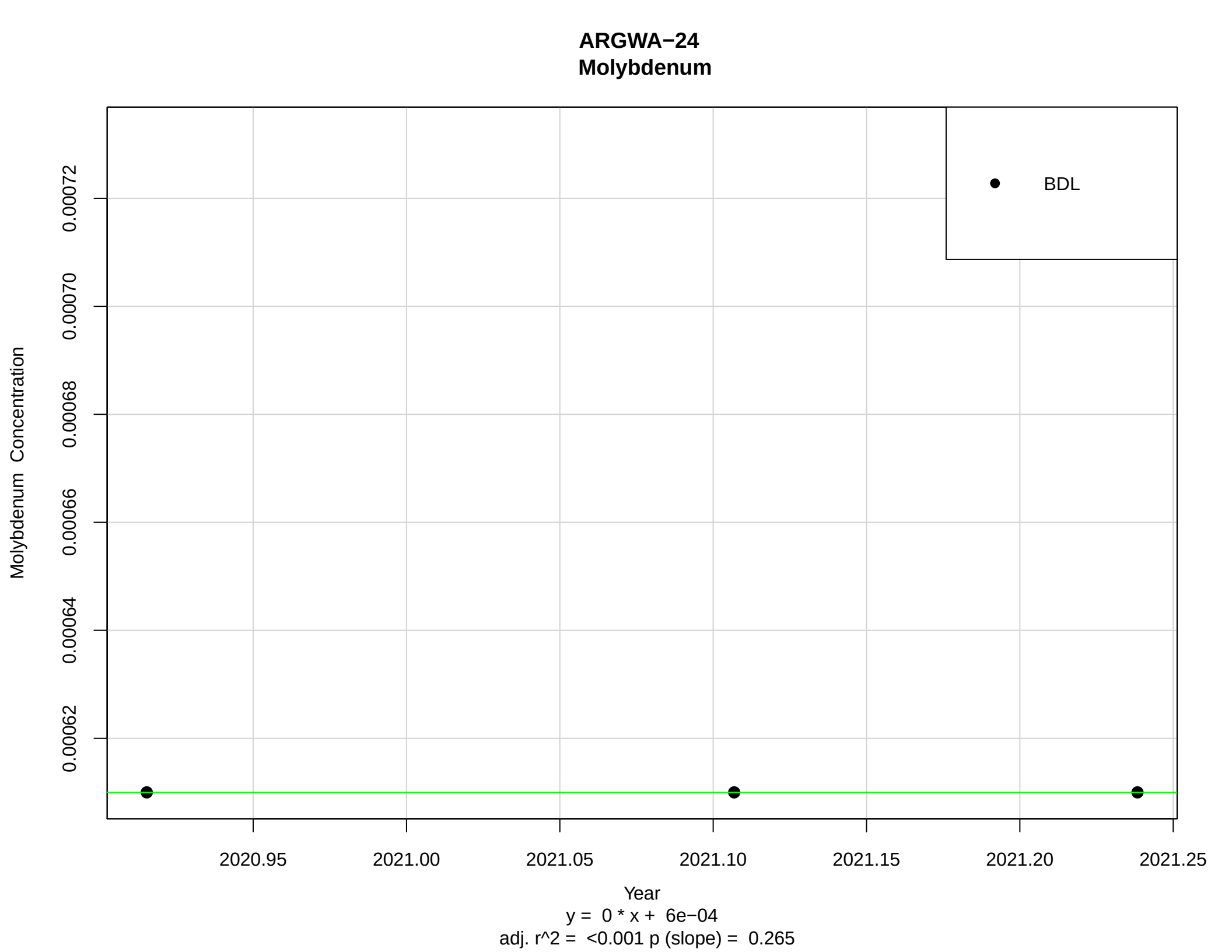

ARGWA−3
Molybdenum
BDL
Detect
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.0035 * x + 7.1574
adj. r^2 = 0.621 p (slope) = <0.05

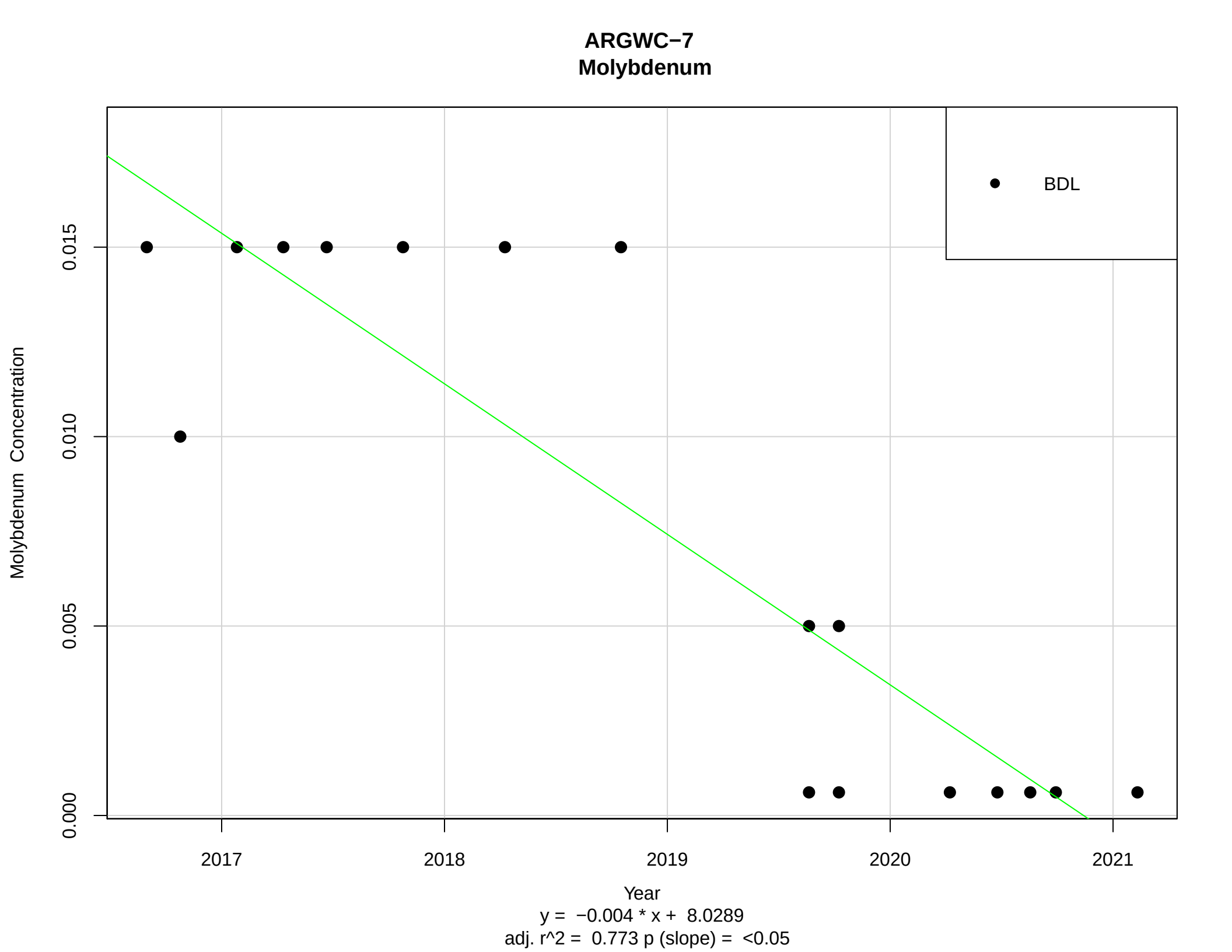

ARGWA−5
Molybdenum
BDL
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.004 * x + 8.0265
adj. r^2 = 0.773 p (slope) = <0.05

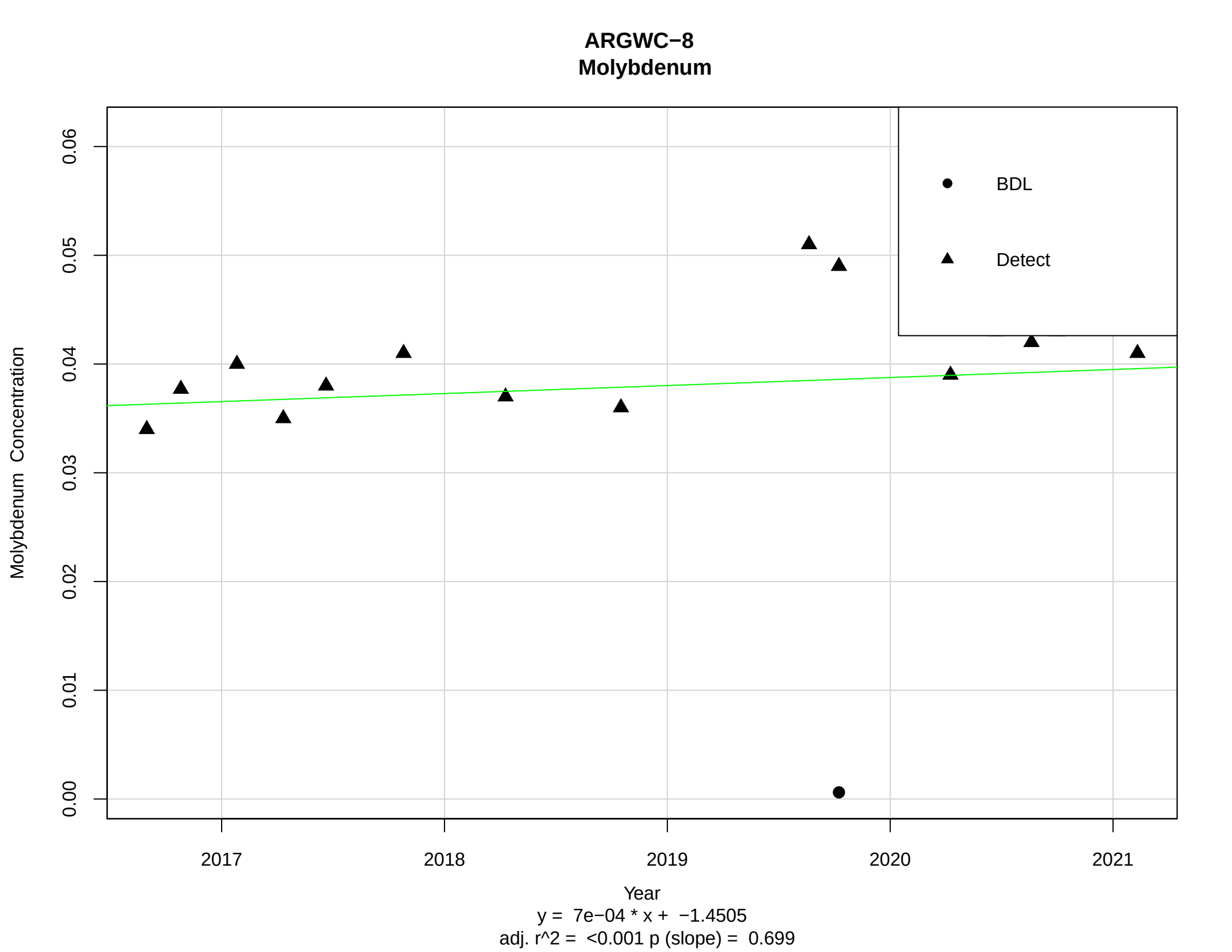

ARGWA−12
Molybdenum
BDL
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.004 * x + 8.0231
adj. r^2 = 0.773 p (slope) = <0.05

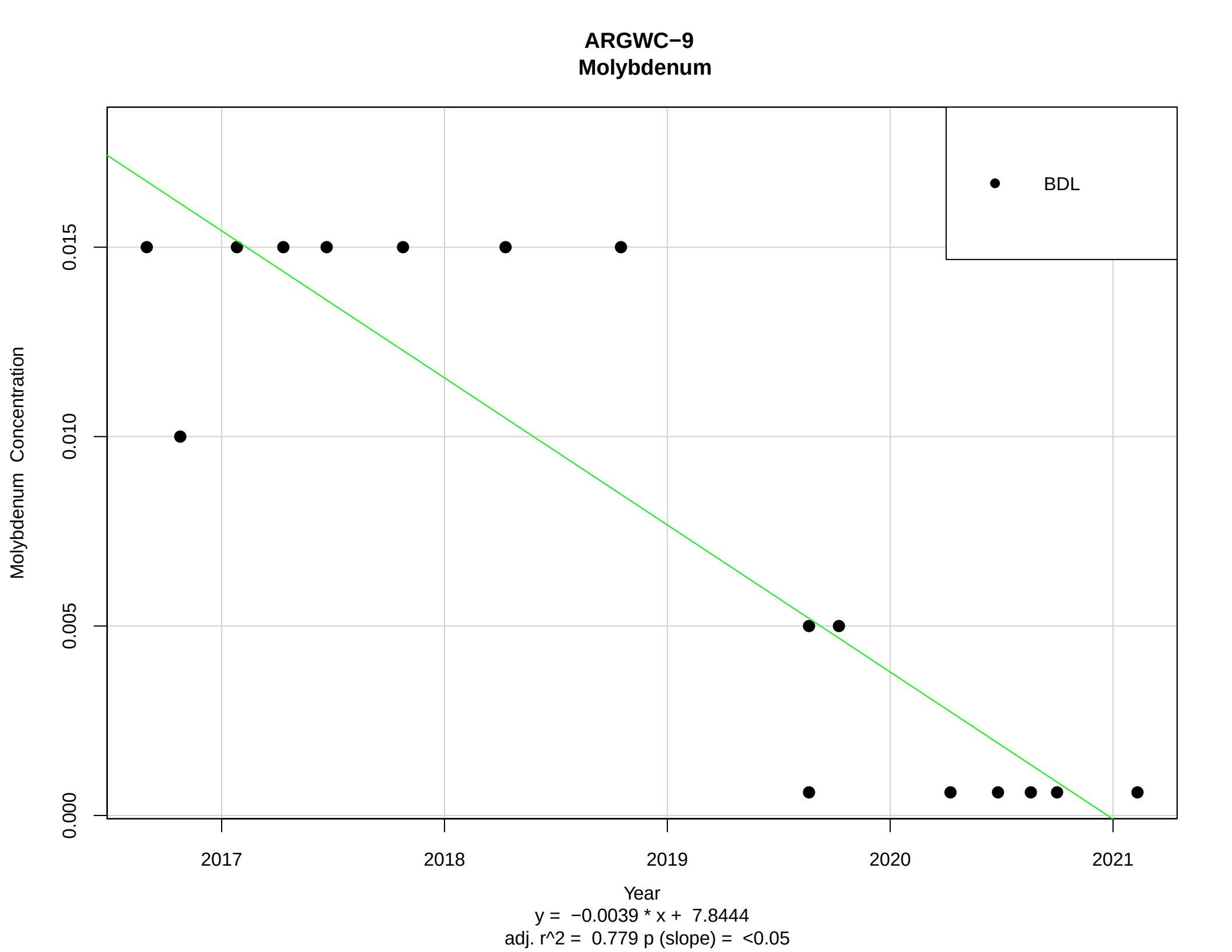

ARGWA−13
Molybdenum
BDL
Detect
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.0036 * x + 7.2123
adj. r^2 = 0.641 p (slope) = <0.05

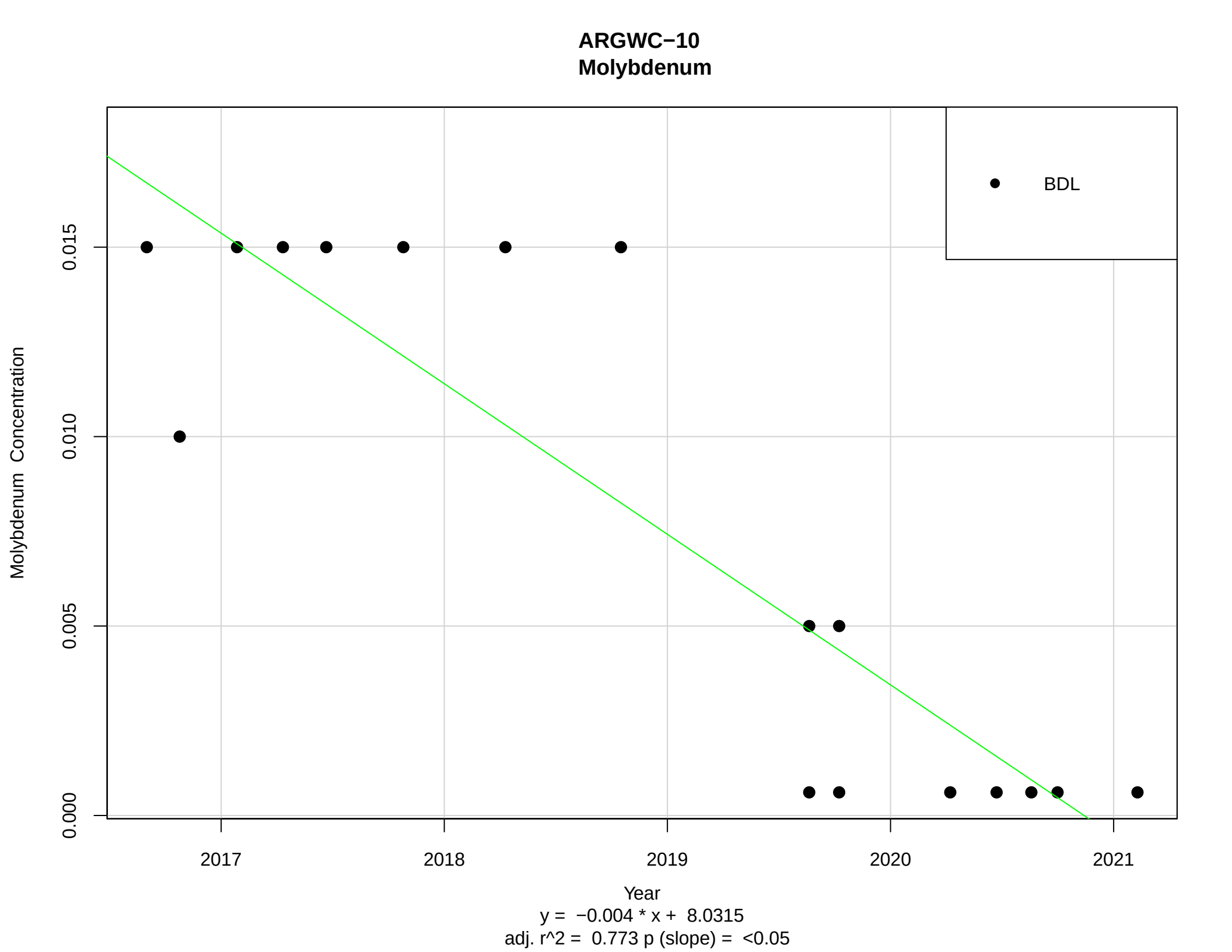

ARGWA−14
Molybdenum
BDL
Detect
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.0033 * x + 6.6212
adj. r^2 = 0.546 p (slope) = <0.05

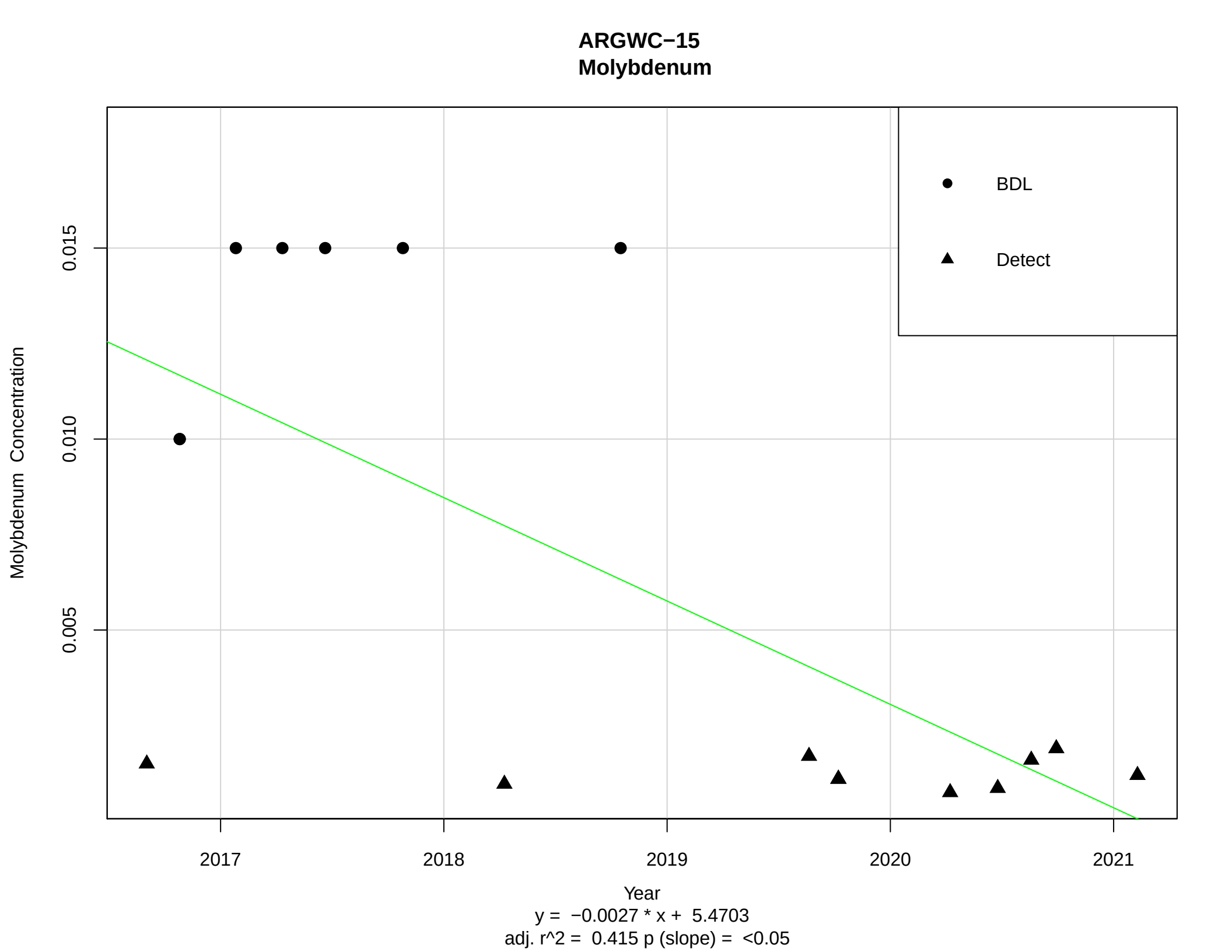

ARGWA−24
Molybdenum
BDL
Molybdenum Concentration
0.00062
0.00064
0.00066
0.00068
0.00070
0.00072
2020.95
2021.00
2021.05
2021.10
2021.15
2021.20
2021.25
Year
y = 0 * x + 6e−04
adj. r^2 = <0.001 p (slope) = 0.265

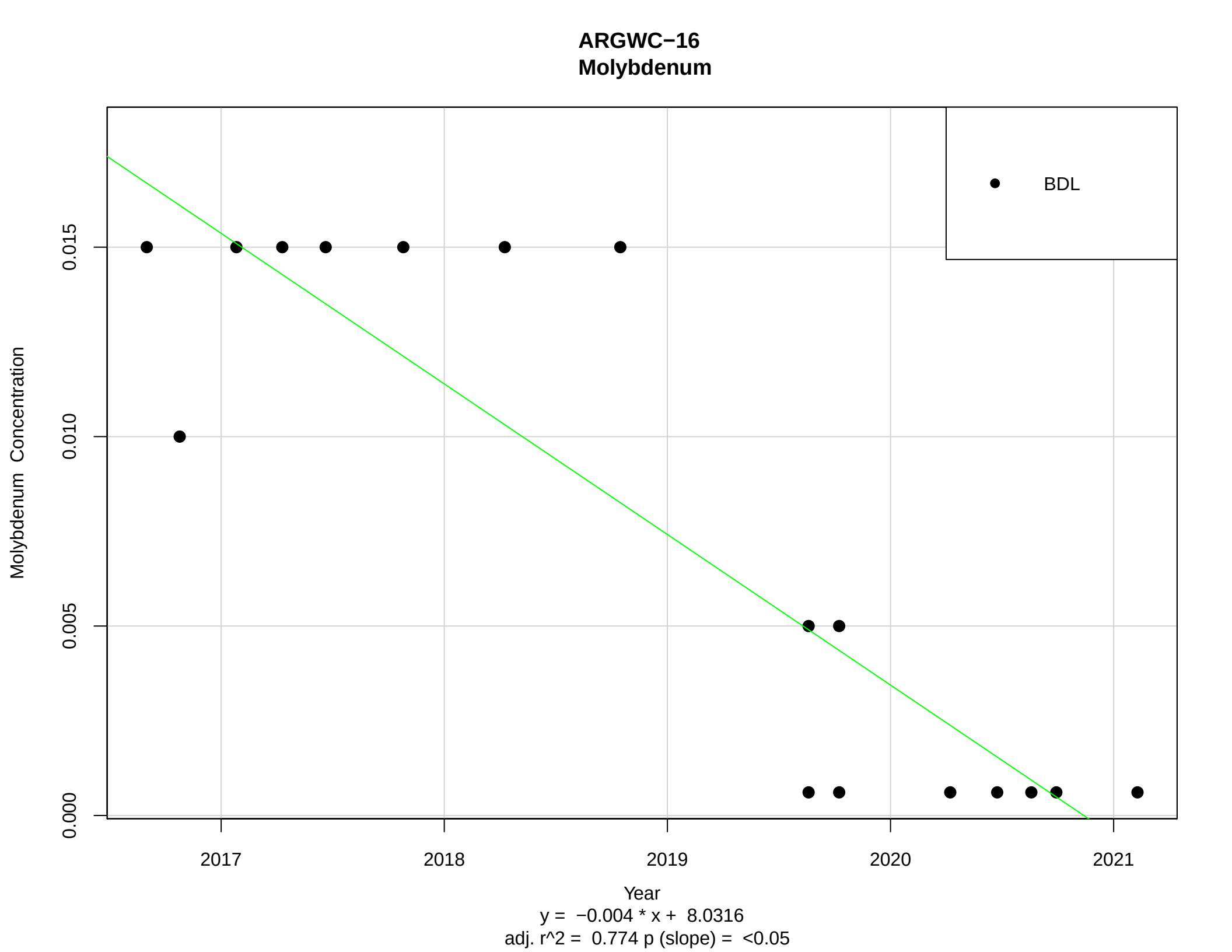

ARGWC−7
Molybdenum
BDL
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.004 * x + 8.0289
adj. r^2 = 0.773 p (slope) = <0.05

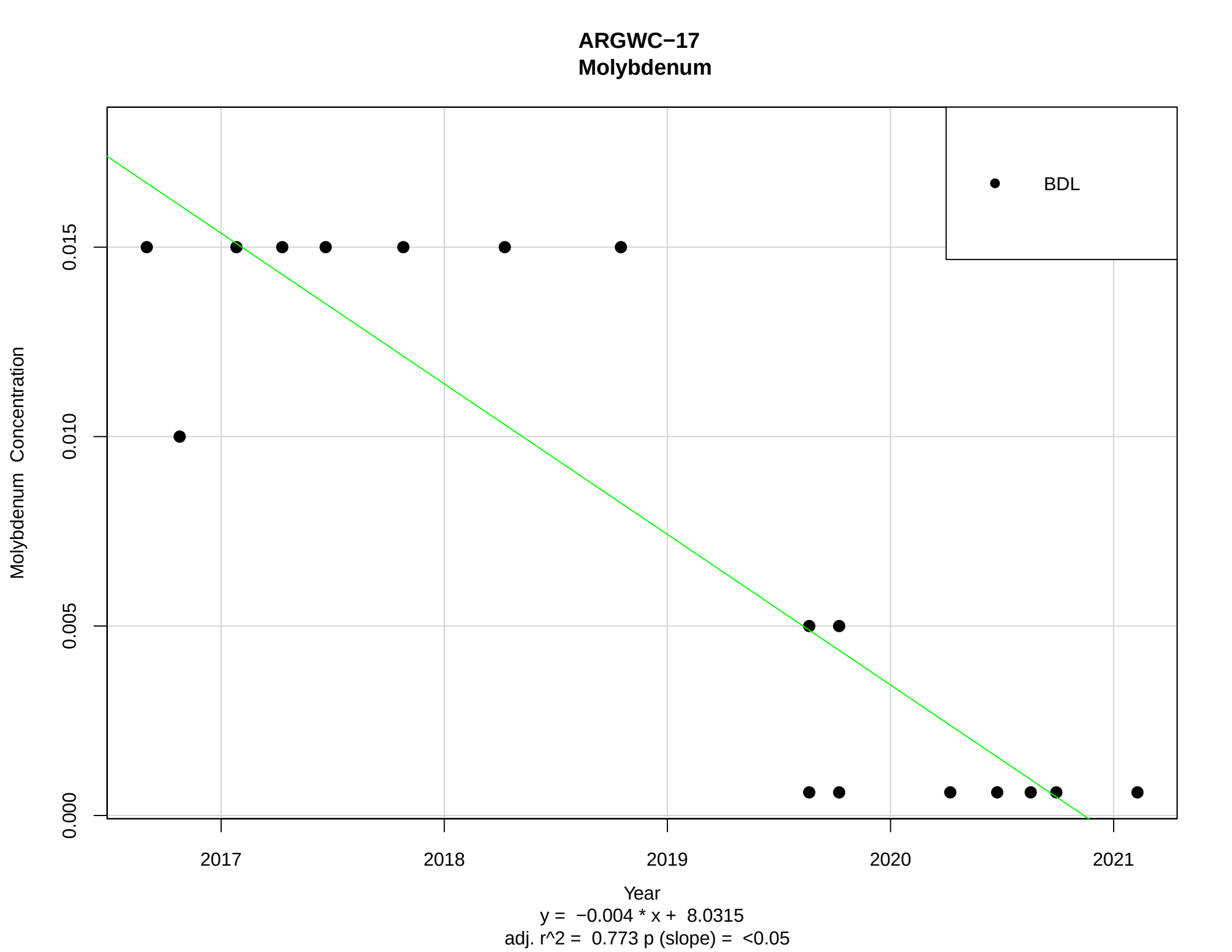

ARGWC−8
Molybdenum
BDL
Detect
Molybdenum Concentration
0.00
0.01
0.02
0.03
0.04
0.05
0.06
2017
2018
2019
2020
2021
Year
y = 7e−04 * x + −1.4505
adj. r^2 = <0.001 p (slope) = 0.699

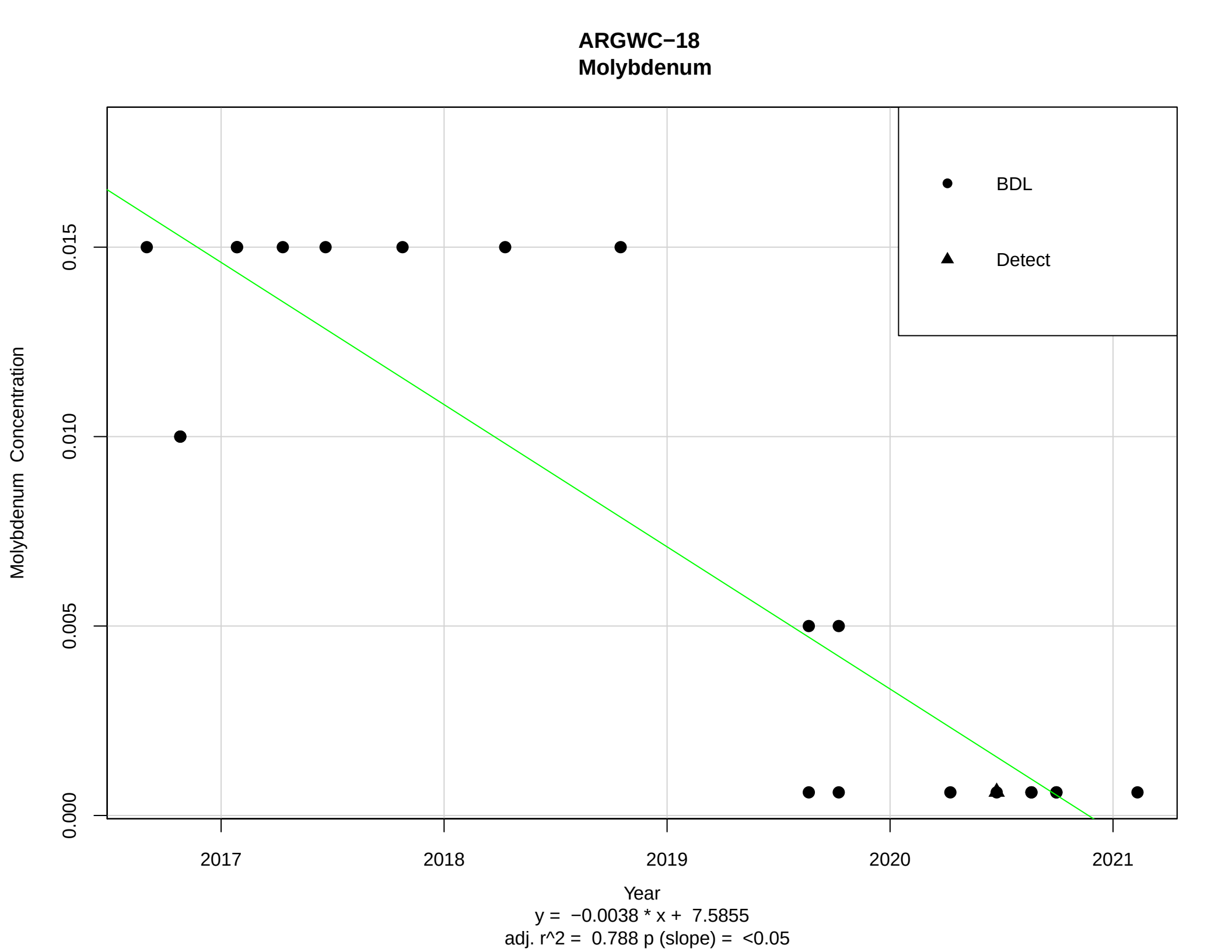

ARGWC−9
Molybdenum
BDL
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.0039 * x + 7.8444
adj. r^2 = 0.779 p (slope) = <0.05


ARGWC−10
Molybdenum
BDL
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.004 * x + 8.0315
adj. r^2 = 0.773 p (slope) = <0.05


ARGWC−15
Molybdenum
BDL
Detect
Molybdenum Concentration
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.0027 * x + 5.4703
adj. r^2 = 0.415 p (slope) = <0.05


ARGWC−16
Molybdenum
BDL
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.004 * x + 8.0316
adj. r^2 = 0.774 p (slope) = <0.05


ARGWC−17
Molybdenum
BDL
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.004 * x + 8.0315
adj. r^2 = 0.773 p (slope) = <0.05


ARGWC−18
Molybdenum
BDL
Detect
Molybdenum Concentration
0.000
0.005
0.010
0.015
2017
2018
2019
2020
2021
Year
y = −0.0038 * x + 7.5855
adj. r^2 = 0.788 p (slope) = <0.05