



**2024 SEMI-ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE ACTION
REPORT**

Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

February 28, 2025

Prepared for:

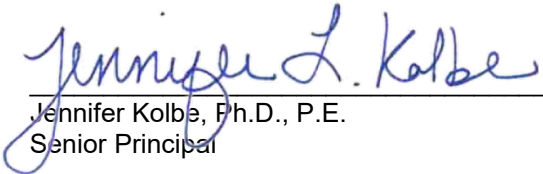


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**2024 Semi-Annual Groundwater Monitoring and Corrective Action Report
Plant Arkwright Ash Pond 2 Dry Ash Stockpile**

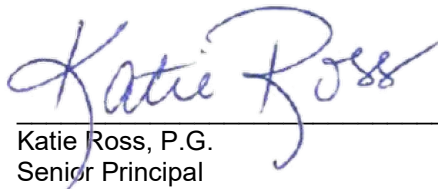
CERTIFICATION STATEMENT

This *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report, Plant Arkwright, Ash Pond 2 Dry Ash Stockpile* has been prepared in accordance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4.14 by a qualified groundwater scientist or engineer with Stantec Consulting Services, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.


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2/28/2025
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Executive Summary

This summary of the *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report* provides the status of the groundwater monitoring and corrective action program from July 2024 through December 2024 at the Georgia Power Company (Georgia Power) former Plant Arkwright Ash Pond 2 Dry Ash Stockpile (AP-2 DAS). This summary was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of Georgia Power to meet the requirements listed in 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 plant address is 5241 Arkwright Road, Macon, Georgia, 31210. The 11-acre AP-2 DAS is located between Arkwright Road to the north and Beaverdam Creek to the south. When in operation, the coal-fired Plant Arkwright power plant consisted of four 40-megawatt units. In the years before retirement, the plant was used primarily to provide peaking power and operated approximately 40 to 60 days per year. Plant Arkwright was retired in 2002 and decommissioned in 2003. Georgia Power officially closed the AP-2 DAS in 2010, with GA EPD's approval and in accordance with the solid waste landfill regulations in effect at the time of its closure.



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The groundwater monitoring program for AP-2 DAS 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. 011-031D(LI). AP-2 DAS is also subject to the GA EPD Rules for Solid Waste Management 391-3-4-.10 for coal combustion residuals (CCR) management. Georgia Power submitted a CCR permit application to GA EPD in 2018 proposing closure by removal of AP-2 DAS to a lined landfill. Groundwater at AP-2 DAS is monitored using a comprehensive groundwater monitoring system that meets GA EPD requirements. Groundwater sampling and reporting for compliance to meet requirements of Rule 391-3-4.10 began after baseline upgradient groundwater conditions were established between August 2016 and October 2018. Based on groundwater conditions at AP-2 DAS, an assessment monitoring program was initiated on November 13, 2019, and assessment of corrective measures began on July 9, 2020. During the 2024 semi-annual reporting period, AP-2 DAS remained in assessment monitoring as corrective measures were evaluated. A Draft Remedy Selection Report, which summarizes the evaluation and proposed selection of a corrective measure, or measures, was submitted to GA EPD on February 28, 2024.

During the 2024 semi-annual reporting period, Stantec conducted one groundwater sampling event in August 2024. As part of a pre-design investigation for corrective action at AP-2, two piezometers, ARAMW-10 and ARAMW-11, were installed in November 2024 to evaluate cobalt and lithium concentrations and to potentially use these piezometers for future pilot testing at the Site. Additionally, piezometer ARAMW-12 was installed in November 2024 to evaluate molybdenum concentration with



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depth in the vicinity of well ARGWC-23. The three new piezometers were sampled in December 2024. Samples collected in August and December 2024 were analyzed for the full suites of Appendix III¹ and Appendix IV² constituents listed in Title 40, Code of Federal Regulations Part 257 (CCR Rule) and the GA EPD Appendix I constituent silver. Per the CCR Rule, groundwater results for the August 2024 data were evaluated in accordance with the certified statistical methods. Statistical analyses indicate statistically significant increases (SSIs) for Appendix III constituents above the statistical limits and statistically significant levels (SSLs) of Appendix IV constituents above the groundwater protection standards as summarized below. Cobalt and lithium SSLs were identified in well, ARAMW-7, and an SSL of lithium was identified in ARGWC-23, similar to recent reports for AP-2-DAS. Additionally, a new SSL of molybdenum was identified in ARAMW-8, at AP-2 DAS.

Appendix III Constituents	August 2024
Boron	ARGWC-21, ARGWC-22, ARGWC-23
Calcium	ARGWC-21, ARGWC-22, ARGWC-23
Fluoride	ARGWC-23
pH	ARGWC-21, ARGWC-23
Sulfate	ARGWC-21, ARGWC-22, ARGWC-23
TDS	ARGWC-21, ARGWC-22, ARGWC-23
Appendix IV Constituents	August 2024
Cobalt	ARAMW-7
Lithium	ARAMW-7, ARGWC-23
Molybdenum	ARAMW-8

Based on review of the CCR Rule Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program from July 2024 through December 2024, assessment monitoring will continue along with assessment of corrective measures. Georgia Power will continue routine groundwater monitoring and reporting at AP-2 DAS. Reports will be submitted to GA EPD semi-annually.

¹ Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

² Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228



Acronyms / Abbreviations

40 CFR	Title 40 Code of Federal Regulations
ACM	Assessment of Corrective Measures
AP-2	Ash Pond 2
AP-2 DAS	Ash Pond 2 Dry Ash Stockpile
CCR	Coal Combustion Residuals
CCR Rule	40 CFR § 257 Subpart D
District	Washington Slope District
DO	Dissolved Oxygen
GA EPD	Georgia Environmental Protection Division
GEL	GEL Laboratories LLC
Georgia Power	Georgia Power Company
GSC	Groundwater Stats Consulting LLC
GWPS	Groundwater Protection Standards
MCL	Maximum Contaminant Level
mg/L	Milligrams per Liter
NAVD88	North American Vertical Datum of 1988
NELAP	National Environmental Laboratory Accreditation Program
NTU	Nephelometric Turbidity Units
ORP	Oxidation-Reduction Potential
Pace	Pace Analytical Services LLC
PWR	Partially Weathered Rock
QA/QC	Quality Assurance/Quality Control
Site	Former Plant Arkwright Ash Pond 2 Dry Ash Stockpile
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
Stantec	Stantec Consulting Services, Inc.
TDS	Total Dissolved Solids
Unified Guidance	Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009
UPL	Upper Prediction Limit
US EPA	United States Environmental Protection Agency
UTL	Upper Tolerance Limit



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 *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at the Georgia Power Company (Georgia Power) former Plant Arkwright Ash Pond 2 (AP-2) Dry Ash Stockpile (AP-2 DAS) Site (Site). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Title 40 Code of Federal Regulations (40 CFR) § 257 Subpart D - Standards for the Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments (CCR Rule). For ease of reference, the applicable CCR Rule references are cited within this report.

Groundwater monitoring and reporting for Plant Arkwright AP-2 DAS are performed in accordance with the monitoring requirements of 40 CFR § 257.90 through § 257.96. This semi-annual report documents the activities completed between July 2024 and December 2024. One semi-annual assessment monitoring event was conducted during this reporting period in August 2024. Additionally, a sampling event was performed in December 2024 to collect baseline samples from piezometers installed in November 2024 (ARAMW-10, ARAMW-11, and ARAMW-12).

Due to statistically significant levels (SSLs) of certain CCR Rule Appendix IV constituents identified in the *2020 Annual Groundwater Monitoring and Corrective Action Report* (Wood, 2020a), Georgia Power initiated an assessment of corrective measures (ACM) for AP-2 DAS on July 9, 2020, pursuant to 40 CFR § 257.96(b), and an ACM Report for cobalt was prepared and submitted to GA EPD in December 2020 (Wood, 2020b). Based on statistical analyses on the recent semi-annual sampling events, cobalt and lithium show SSLs at well ARAMW-7, lithium is an SSL at ARGWC-23, and molybdenum is an SSL at ARAMW-8 at AP-2 DAS. A Draft Remedy Selection Report was submitted to GA EPD on February 28, 2024, proposing in-situ injections with monitored natural attenuation as a remedy to address the cobalt and lithium SSLs at ARAMW-7. SSLs for lithium at ARGWC-23 and molybdenum at ARAMW-8, which occurred after submittal of the Draft Remedy Selection Report, are currently under evaluation.

Well ARAMW-7 is screened between shallow well ARGWC-22 and deep well ARAMW-9. Both ARGWC-22 and ARAMW-9 do not show an SSL for cobalt or lithium establishing vertical delineation of the SSLs at ARAMW-7.

Vertical delineation for lithium in ARGWC-23 is completed by the adjacent deep well ARAMW-8, which does not show an SSL for lithium.

Vertical delineation is in progress for the newly identified SSL of molybdenum in ARAMW-8. The installation of well ARAMW-12 in November 2024 intends to vertically delineate molybdenum in well ARAMW-8.

The cobalt, lithium, and molybdenum SSLs at AP-2 DAS are horizontally delineated by downgradient surface water samples with constituents being below analytical laboratory method detection limits, which are well below the Groundwater Protection Standard (GWPS).



1.1 Site Description and Background

Plant Arkwright is located in Bibb County, Georgia, approximately 6 miles northwest of the city of Macon (Figure 1). The physical address of the plant is 5241 Arkwright Road, Macon, Georgia 31210. The 11-acre AP-2 DAS is located between Arkwright Road to the north and Beaverdam Creek to the south. When in operation, the coal-fired Plant Arkwright power plant consisted of four 40-megawatt units. In the years before retirement, the plant was used primarily to provide peaking power and operated approximately 40 to 60 days per year. Plant Arkwright was retired in 2002 and decommissioned in 2003.

Plant Arkwright AP-2 DAS was used as a storage area for CCR beginning in the 1950s and was estimated to have been closed in-place in the late 1970s to early 1980s. Georgia Power officially closed AP-2 DAS in 2010 with GA EPD's approval and in accordance with the solid waste landfill regulations specified by GA EPD Rule 391-3-4, in effect at the time of its closure. A Closure Certificate was issued by GA EPD for AP-2 DAS on June 30, 2010. The Closure Certificate initiated the post-closure care period for the CCR unit, which has been performed in accordance with the GA EPD Permit No. 011-031D(LI) following closure. Georgia Power submitted a CCR permit application to GA EPD in 2018 proposing closure by removal of AP-2 DAS to a lined landfill, and is currently under review.

Semi-annual groundwater monitoring at AP-2 DAS is performed for an approved list of analytes in accordance with the post-closure care period requirements of GA EPD Permit No. 011-031D(LI). The permit lists GA EPD 391-3-4-.10 Appendix I constituents as arsenic, barium, cadmium, chloride, lead, selenium, silver, and sulfate. A minor modification approved by GA EPD on August 9, 2017, added the CCR Rule Appendix III and IV constituents to the groundwater monitoring plan. The GA EPD Appendix I constituents overlap with the CCR Rule Appendix III and IV constituents, with the exception of silver.

1.2 Regional Geology & Hydrogeologic Setting

The geology and hydrogeology of the Plant Arkwright Site are summarized below. The Plant Arkwright Site is located along the southern edge of the Washington Slope District (the District) within the Piedmont Physiographic Province (Clark and Zisa, 1976). The District 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 District ranges from approximately 700 feet above mean sea level in the areas of southern Atlanta and Athens to approximately 500 feet above mean sea level at its southern limit along the Georgia Fall Line. Streams follow the surface topography of the underlying crystalline rocks eastward toward the Ocmulgee River. Typically, relief throughout the District ranges between 50 and 100 feet. However, the greatest relief occurs along the Ocmulgee River where the elevation changes from 150 to 200 feet due to steep walled valleys (Clark and Zisa, 1976). Ultimately, the 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, amphibolite, and igneous rocks like granite. In the southernmost Piedmont, around the Site, bedrock is predominantly composed of biotite gneiss. Major geologic structures in the region include the Ocmulgee fault, located approximately 7 miles northwest of the Site, which strikes mostly



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1.0 Introduction

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 Plant Arkwright consists of clays, silty and sandy clays, silty sands, sandy silts, and minor gravel at depth, underlain by a silty sand saprolite and bedrock. Historical borings advanced at the Site indicate bedrock occurs at depths ranging from approximately 14 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 a more competent 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 (overburden) hydrostratigraphic unit and the underlying shallow fractured bedrock hydrostratigraphic unit. The water table (overburden) unit is composed of unconsolidated silty sands and sandy silts with clays and variable thicknesses of PWR mantling the bedrock surface, whereas the bedrock unit is a zone comprised 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) and is considered to be under unconfined conditions. The monitoring well network for AP-2 DAS (Figure 2) monitors the uppermost aquifer at the Site.

Slug testing data from the Site reflects a range of hydraulic conductivities from 10^{-6} to 10^{-3} centimeters per second (0.0028 to 2.835 feet per day) in the water table hydrostratigraphic unit (Southern Company Services, 2005). Groundwater level gauging data from the Site show stable water level trends and the potentiometric surface map depicts groundwater generally flowing to the south across AP-2 DAS (Figure 3).

1.3 Groundwater Monitoring System

Pursuant to 40 CFR § 257.91, Georgia Power installed a groundwater monitoring system within the uppermost aquifer at AP-2 DAS. The groundwater monitoring system is designed to monitor groundwater passing the waste boundary of AP-2 DAS within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring points based on the groundwater flow direction (Table 1). The monitoring well locations are depicted in Figure 2.



2.0 Groundwater Monitoring Activities

The following describes monitoring-related activities performed between July 2024 and December 2024. Samples were collected from each of the wells in the groundwater monitoring system depicted in Figure 2. In accordance with 40 CFR § 257.93, Table 2 presents a summary of the groundwater sampling events completed for AP-2 DAS during this monitoring period.

2.1 Monitoring Well Installation and Maintenance

Monitoring wells are inspected semi-annually to determine if repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In August 2024, the monitoring wells were inspected. No needed corrective actions were identified, as documented in Appendix A.

Assessment monitoring wells ARGWC-21, ARGWC-22, ARGWC-23, ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8 were redeveloped between August 13, 2024, and August 14, 2024. The wells, located along the northern bank of Beaver Dam Creek, were redeveloped due to flooding that led to the inundation of well protective casings. Field logs recording the redevelopment of the assessment monitoring wells are provided in Appendix B.

In November 2024, as part of PDI and delineation activities, piezometers ARAMW-10 (bedrock) and ARAMW-11 (overburden) were installed south of AP-2 DAS, and piezometer ARAMW-12 (bedrock) was installed southeast of AP-2 DAS. The piezometer installation report was submitted under separate cover (Stantec, 2025) and is included in Appendix C.

During the November 2024 drilling event, the elevations of monitoring wells were altered, either to facilitate drilling access or as part of repairs made following the event. A summary of well maintenance and repairs is included in Appendix A. The wells were re-surveyed on December 9, 2024. The surveying results are included with the well installation report (Appendix C) and elevations will be updated for future gauging events.

2.2 Assessment Monitoring

Georgia Power implemented assessment monitoring in accordance with 40 CFR § 257.95 in November 2019. During the 2024 semi-annual reporting period, a semi-annual assessment monitoring event at AP-2 DAS was conducted from August 20 to 21, 2024. Groundwater samples were collected from each well in the certified groundwater monitoring system and analyzed for the full suites of CCR Rule Appendix III and Appendix IV constituents and the GA EPD Appendix I constituent, silver. Laboratory and field data reports for the August 2024 monitoring event are included in Appendix B.

2.3 Surface Water Sampling and Additional Groundwater Sampling

Due to the close proximity of Beaverdam Creek in the downgradient direction of ARAMW-7, further well installation was infeasible. Instead, five surface water samples were collected on August 12, 2024, from locations along Beaverdam Creek near AP-2 DAS, as shown on Figure 2.



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2.0 Groundwater Monitoring Activities

Surface water samples were analyzed for the full suites of 40 CFR Part 257 Appendix III and targeted SSL Appendix IV constituents. Surface water samples were also submitted for analysis of total alkalinity, bicarbonate alkalinity, magnesium, potassium, and sodium. The laboratory reports associated with the August 2024 sampling event are provided in Appendix B.

During the August 2024 semi-annual sampling event, groundwater samples were analyzed for dissolved iron and manganese in addition to the parameters described in Section 2.2. Dissolved iron and manganese concentrations provide information regarding the oxidation-reduction conditions, which is a key factor influencing the behavior of cobalt in the subsurface. Results are included in the laboratory analytical reports in Appendix B.

Piezometers ARAMW-10 and ARAMW-11 were installed in November 2024 and sampled in December 2024. Piezometer ARAMW-12 could not be sampled during the December 2024 sampling event due to lack of recharge. Groundwater samples were analyzed for the parameters described in Section 2.2 and dissolved iron and manganese. Results are included in the laboratory analytical reports in Appendix B.



3.0 Sample Methodology & Analyses

The semi-annual groundwater sampling event completed in August 2024 for AP-2 DAS included sampling for the constituents listed in CCR Rule Appendix III and Appendix IV, with the addition of silver, which is a constituent in GA EPD Appendix I. Groundwater analytical data and chain-of-custody records are located in Appendix B. The following sections describe methods used to conduct the groundwater monitoring activities at AP-2 DAS.

3.1 Groundwater Elevation Measurements and Flow Direction

Prior to each sampling event, the static groundwater levels were measured in each monitoring well at AP-2 DAS. The water level indicator was properly decontaminated between each monitoring well. Groundwater elevations are summarized in Table 3. The recorded water level data were used to determine the groundwater elevations in each well and develop a potentiometric surface elevation contour map (Figure 3). Review of the figure indicates that the apparent groundwater flow direction in the uppermost aquifer is to the south in the direction of Beaverdam Creek. This groundwater flow pattern is consistent with historical groundwater flow patterns.

3.2 Groundwater Gradient and Flow Velocity

The groundwater flow velocity at AP-2 DAS was calculated using a derivation of Darcy's Law. Specifically,

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

Where:

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

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

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

n_e = Effective porosity (unitless)

The general groundwater flow velocities were calculated for AP-2 DAS based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). The general groundwater flow velocity values based on August 19, 2024 groundwater elevations are presented in Table 4. The results for groundwater flow velocity through the central portion of AP-2 DAS was 0.092 feet/day (34 feet/year) in August 2024. Groundwater flow velocity through the eastern portion was 0.082 feet/day (30 feet/year) in August 2024. The observed groundwater flow velocities calculated for this monitoring event are generally consistent with expected velocities in the regolith-upper bedrock aquifers of the Georgia Piedmont.



3.3 Groundwater Sampling

Groundwater samples were collected in August 2024 and December 2024 (ARAMW-10 and ARAMW-11 only). Sampling procedures were conducted in accordance with US EPA Region 4 *Laboratory Services and Applied Science Division Operating Procedures for Groundwater Sampling* (LSASDPROC-301-R6, April 22, 2023). Monitoring wells were purged and sampled using low-flow sampling procedures. Dedicated or non-dedicated low-flow pneumatic bladder or peristaltic pumps were used to purge and sample the wells. An In-Situ Aqua TROLL® 400 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 for three consecutive readings measured at five-minute intervals:

- pH \pm 0.1 Standard Units
- Specific conductance \pm 5 %
- \pm 10% for DO where DO > 0.5 milligrams per liter (mg/L). No criterion applies if DO < 0.5 mg/L
- Turbidity measurements less than five Nephelometric Turbidity Units (NTU)
- 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. If turbidity readings were greater than 10 NTU at the time of sampling and after 3 hours of purging, a dissolved metals sample would be collected by filtering the water with a 0.45-micron water filter. Turbidity readings were below 10 NTUs during the August and December 2024 sampling events, and no filtered samples were collected. Sample bottles were placed in ice-packed coolers and submitted to GEL Laboratories LLC (GEL) in Charleston, South Carolina following chain-of-custody protocols. Stabilization logs and equipment calibration forms are included in Appendix B.

3.4 Surface Water Sampling

Surface water samples were collected in August 2024. Sampling was performed in accordance with US EPA Region 4 *Laboratory Services and Applied Science Division Operating Procedures for Surface Water Sampling* (LSASDPROC-201-R6, April 22, 2023).

Surface water samples were analyzed for the full suite of 40 CFR Part 257 Appendix III and targeted SSL Appendix IV constituents. Surface water samples were also submitted for analysis of total alkalinity, bicarbonate alkalinity, magnesium, potassium, and sodium.

Sample bottles were placed in ice-packed coolers and submitted to Pace Analytical Services, LLC (Pace) of Peachtree Corners, Georgia, following chain-of-custody protocol.



3.5 Laboratory Analyses

The groundwater samples were analyzed for CCR Rule Appendix III and Appendix IV constituents, as well as the GA EPD Appendix I constituent, silver. The samples were analyzed for additional parameters³ to assist with ongoing remedy evaluation. Laboratory analyses of the groundwater were performed by GEL, which is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains the NELAP accreditation for the constituents analyzed for this project. Table 5 summarizes the August and December 2024 groundwater analytical results, and the corresponding formal analytical reports are in Appendix B.

The August 2024 surface water samples were also analyzed for CCR Rule Appendix III and Appendix IV constituents. Laboratory analyses of the surface water samples were performed by Pace, which is also a NELAP accredited laboratory. Table 6 summarizes the surface water analytical results, and the corresponding formal analytical reports can be found in Appendix B.

3.6 Quality Assurance & Quality Control

During each sampling event, various quality assurance/quality control (QA/QC) samples were collected. Equipment blanks (where non-dedicated sampling equipment was used) were collected at a rate of one QA/QC sample per 10 groundwater samples to assess the adequacy of the decontamination process. Blind field duplicate samples were collected by filling additional containers at the same location during the sampling events at a rate of one QA/QC sample per 10 groundwater samples. Field blanks were also collected to evaluate ambient conditions at the sampling locations at a rate of one QA/QC sample per 10 groundwater samples.

QA/QC of the groundwater data were assessed by performing a data quality evaluation of the laboratory results reported. A data quality evaluation was conducted on the data using laboratory precision and accuracy, and analytical method requirements (US EPA, 2002). The data quality evaluations are included in Appendix B.

The analytical results provided in Tables 5 and 6 provide concentrations from the August 2024 groundwater assessment monitoring and surface water sampling event as reported by the laboratories. 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 that the constituent was not detected above the analytical minimum detectable concentration. The data are considered usable for meeting project objectives and the results are considered valid.

³ Total alkalinity, bicarbonate alkalinity, carbonate alkalinity, total iron, manganese, total magnesium, potassium, and sodium



4.0 Statistical Analyses

Statistical analyses of GA EPD Appendix I (silver) and CCR Rule Appendix III and Appendix IV constituents were performed on samples collected from the groundwater monitoring system pursuant to 40 CFR § 257.93(f) and following the statistical method for AP-2 DAS. In addition, pursuant to 40 CFR § 257.95(d)(2), GWPS were established for the Appendix IV constituents from the assessment monitoring event. The groundwater data were statistically analyzed by Groundwater Stats Consulting, LLC (GSC). The reports generated from the analyses are provided in Appendix D.

The following sections provide an overview of the statistical methods used to evaluate the GA EPD Appendix I and CCR Rule Appendix III and Appendix IV constituents and statistical analyses results.

4.1 Statistical Method

The statistical analysis method used at AP-2 DAS was developed by GSC using methodology presented in the *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009*, EPA 530/R-09-007 (US EPA, 2009) (Unified Guidance). Sanitas™ Statistical Software 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. Specific methodology information is described in the following paragraphs.

4.2 Appendix I and Appendix III Statistical Method

Interwell prediction limits were used for the analysis of the six GA EPD Appendix I constituents (arsenic, barium, cadmium, lead, selenium, and silver) and the full suite of CCR Rule Appendix III constituents. A comparison of confidence intervals to GWPS was also used to evaluate the GA EPD Appendix I constituents. When using the interwell method, upgradient well data are pooled to establish a background statistical limit (upper prediction limit [UPL] or in the case of pH, prediction interval) for each constituent. Individual sample results are then compared to the UPL, or prediction interval for pH, to determine if an SSI has occurred for the constituent/well pair. When an initial SSI is identified, a second sample may be collected to verify the initial result.

The interwell prediction limit assumed a 1-of-2 verification resample plan. If data from a sampling event initially indicate an SSI, then a resample may be collected to verify the initial result. In 1-of-2 resampling, one independent resample is collected and evaluated within 90 days to determine whether the initial SSI is verified. If the resample concentration is above the UPL or a resample is not collected, then the initial SSI is verified. If the resample concentration is less than the UPL, then an SSI is not declared.

Data from groundwater samples from downgradient wells collected in the August 2024 monitoring event were compared to the UPLs to evaluate whether SSIs exist. No resampling was conducted for the 2024 annual monitoring period.



4.3 Appendix IV Statistical Method

The assessment monitoring program statistics for CCR Rule Appendix IV and GA EPD Appendix I constituents were conducted in two parts. The first part was to establish the GWPS for each CCR Rule Appendix IV constituent and GA EPD Appendix I constituent (silver). The second part was the calculation of confidence intervals for individual downgradient well/constituent pairs and then comparing them to the GWPS.

Upper Tolerance Limits (UTLs) were calculated from pooled upgradient well data for Appendix IV constituents. Parametric UTLs were calculated when data followed a normal or transformed-normal distribution. When data contained greater than 50% non-detects or were not in a normal or transformed-normal distribution, non-parametric tolerance limits were used. When parametric methods were appropriate, a 95% UTL with 95% coverage was calculated. When non-parametric UTLs were appropriate, the level of confidence could not be pre-specified and was a function of the size of the data set. The level of confidence for the non-parametric UTLs is provided in the GSC August 2024 report (Appendix D). The background limits were evaluated when determining the GWPS under 40 CFR § 257.95(h).

Table 7 summarizes the background limits established for each CCR Rule Appendix IV constituent and GA EPD Appendix I constituent (silver) and the GWPS established under GA EPD Rules.

To complete the statistical evaluation, confidence intervals were constructed for each downgradient well/constituent pair and compared to the GWPS. In assessment monitoring, an SSL is identified only when the entire confidence interval is above a GWPS in the downgradient well/constituent pair.

4.4 Statistical Analyses Results – Appendix I and Appendix III

Based on review of the GA EPD CCR Rule Appendix III statistical analysis from the August 2024 sampling event, groundwater conditions have not returned to background concentrations and assessment monitoring will continue. Note that GA EPD Appendix I constituent, silver, was not identified as an SSI during the semi-annual sampling event. The statistical analyses and comparisons to prediction limits are included in Appendix D. Additionally, tables contained in Appendix D summarize the various SSIs identified based on the statistical analyses performed on the recent groundwater analytical results.



4.5 Statistical Analyses Results – Appendix IV

The August 2024 GWPS are based on MCLs, the GA EPD adopted Federal GWPS (cobalt, molybdenum, lithium, and lead), and site-specific background concentrations, as required by GA EPD. Appendix D shows the individual well/constituent pairs for CCR Rule Appendix IV constituents and GA EPD constituent (silver) with their respective confidence intervals in comparison to the respective constituent GWPS. Based on the statistical results presented in Appendix D, the identified SSLs include:

- August 2024:
 - Lithium: ARAMW-7, ARGWC-23
 - Cobalt: ARAMW-7
 - Molybdenum: ARAMW-8

When GWPSs were exceeded, data were further evaluated for trend. Trend testing utilizing the Sen's Slope/Mann Kendall method at the 95% confidence level was used to determine whether concentrations were statistically increasing, decreasing, or stable. Upgradient well data were included in the trend analyses for parameters found to exceed their GWPSs in downgradient wells to identify whether similar patterns exist upgradient of the site. Statistically significant trends were identified for the following:

Statistically significant trends were identified for the following:

- August 2024:
 - Increasing
 - Lithium: ARGWC-23
 - Molybdenum: ARAMW-8
 - Decreasing
 - Molybdenum: ARGWC-19 (upgradient)



5.0 Nature and Extent

Based on statistical analysis of Appendix IV groundwater data, SSLs have been identified for cobalt (ARAMW-7) lithium (ARAMW-7 and ARGWC-23) and molybdenum (ARAMW-8). Concentrations of cobalt, lithium, and molybdenum SSLs detected in these wells are less than an order of magnitude above their respective GWPSs and the affected area is limited in extent, as described below.

The cobalt and lithium SSLs identified in the compliance well ARAMW-7 and the lithium SSL identified in ARGWC-23 are horizontally and vertically delineated to levels below GWPS. Vertical delineation is completed by sampling adjacent monitoring wells. The SSLs at ARAMW-7 are vertically delineated by deep well ARAMW-9. The SSL at ARGWC-23 is vertically delineated by deep well ARAMW-8.

To vertically delineate the newly identified SSL of molybdenum in ARAMW-8, a deeper piezometer ARAMW-12 was installed adjacent to ARAMW-8, which was previously installed for the vertical delineation of detection well ARGWC-23 for molybdenum. Since 2022, molybdenum concentrations have been lower than the GWPS in well ARGWC-23. Observation of rock cores collected from ARAMW-12 and results of downhole geophysics indicate competent rock with limited to no water-bearing fractures. Results of geophysical analysis indicate possible water-bearing fractures in the range of 44 – 46 feet below ground surface (similar depth to the screened interval of ARAMW-8) and 62 – 64 feet below ground surface (within the screened interval of ARAMW-12) with competent rock between. An attempt was made to sample ARAMW-12 during the December 2024 sampling event; however, a sample could not be collected due to lack of recharge in the well. Sampling of ARAMW-12 will be attempted during the next sitewide sampling event in February 2025.

Groundwater elevations measured in newly installed piezometers ARAMW-10 and ARAMW-11 are comparable (approximately 296 ft NAVD88) with most nearby wells downgradient of AP-2. However, groundwater elevation in newly installed piezometer ARAMW-12 is approximately 45 feet lower (about 250 ft NAVD88), which would indicate that this piezometer, screened between 50 and 65-ft below land surface and approximately 30-ft into upper bedrock, is likely below the uppermost aquifer at the Site. In contrast, well ARAMW-9 which is a deep bedrock well screened 93 to 102-ft below land surface, shows water elevation higher than the detection wells at the Site. Taken together, the uppermost aquifer at the Site is limited to depths less than 30-ft of upper bedrock. Based on groundwater elevation data, the deeper wells ARAMW-9 and ARAMW-12 are not in direct hydraulic communication with the shallow aquifer.

Due to the presence of Beaverdam Creek in the downgradient direction of ARAMW-7 and ARGWC-23 and the topography in this area, installation of additional wells to horizontally characterize this area is infeasible. Based on cobalt and lithium data collected from Beaverdam Creek to date, horizontal delineation is complete. The lateral extent of the cobalt and lithium SSLs in ARAMW-7 and the lithium SSL in ARGWC-23 are limited to areas less than approximately 100 feet wide, as shown on the isoconcentration maps for cobalt, lithium, presented as Figures 4 and 5, respectively.

Similarly to the SSLs for cobalt and lithium, molybdenum is not detected in surface water samples from Beaverdam Creek, indicating that the horizontal extent of molybdenum impact is limited. The approximate extent of the lithium SSL is presented on Figure 6.



6.0 Monitoring Program Status

Pursuant to 40 CFR § 257.96(b), Georgia Power will continue to monitor the groundwater at AP-2 DAS in accordance with the assessment monitoring program regulations in 40 CFR § 257.95 while ACM efforts continue to be evaluated. Pursuant to 40 CFR § 257.95(g)(1)(iv), the assessment monitoring wells will continue to be sampled as part of the ongoing groundwater monitoring program.

6.1 Assessment of Corrective Measures

A Draft Remedy Selection Report (Stantec, 2024) was submitted to GA EPD on February 28, 2024. This report includes:

- The current groundwater conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Wood, 2020b).
- An evaluation of each corrective measure retained for further consideration following the completed investigations.
- An evaluation of corrective measure options using the comparative criteria such as long- and short-term effectiveness and protectiveness, source control effectiveness, and ease of implementation. The Draft Remedy Selection Report presents geochemical approaches (in-situ injections) coupled with monitored natural attenuation as the proposed groundwater remedy for AP-2 DAS.

In the interim of GA EPD's review of the Draft Remedy Selection Report, Georgia Power continues to make progress towards selection of a remedy through updating routine sampling data and lab treatability testing in preparation for future pilot testing at the Site. The Draft Remedy Selection Report proposed in-situ injections with monitored natural attenuation as a remedy, and a Pilot Test Workplan is being prepared to further evaluate and optimize the injection plan. In addition, treatability studies have been completed to determine injectate materials and to identify proper dosage information.

SSLs for lithium at ARGWC-23 and molybdenum at ARAMW-8, which occurred after submittal of the Draft Remedy Selection Report, are currently under evaluation.



7.0 Conclusions & Future Actions

This *2024 Semi-Annual Groundwater Monitoring and Corrective Action Report* was prepared to fulfill the requirements of US EPA's 40 CFR §257.95 and GA EPD Rules for Solid Waste Management 391-3-4-.10. Review of analytical results and statistical analyses indicate SSLs of cobalt and lithium in well ARAMW-7, an SSL of lithium in well ARGWC-23, and an SSL of molybdenum in well ARAMW-8, which are above the established GWPS.

Horizontal delineation of cobalt and lithium SSLs is considered complete by surface water sampling in Beaverdam Creek, and vertical delineation has been achieved by sampling of adjacent monitoring wells. The SSLs at ARAMW-7 are vertically delineated by deep well ARAMW-9. The SSL at ARGWC-23 is vertically delineated by deep well ARAMW-8. Thus, horizontal and vertical delineations of the cobalt and lithium SSLs in well ARAMW-7 and ARGWC-23 are completed at AP-2 DAS.

Vertical delineation is in progress for the newly identified SSL of molybdenum in ARAMW-8; The installation of well ARAMW-12 in November 2024 intends to vertically delineate molybdenum in this area. Observation of rock cores collected from ARAMW-12 and results of downhole geophysics indicate competent rock with limited fractures. An attempt was made to sample ARAMW-12 during the December 2024 sampling event; however, a sample could not be collected due to lack of recharge in the well. Similarly to the SSLs for cobalt and lithium, molybdenum is not detected in surface water samples from Beaverdam Creek, indicating that the horizontal extent of molybdenum impact is limited.

Georgia Power will continue to monitor AP-2 DAS under the assessment monitoring program pursuant to 40 CFR §257.95. A Draft Remedy Selection Report, which includes additional data collected in support of ACM efforts and summarizes the evaluation and selection of a proposed corrective measure, or measures, was submitted to GA EPD under separate cover on February 28, 2024. The Draft Remedy Selection Report proposed in-situ injections with monitored natural attenuation as a remedy, and a Pilot Test Workplan is being prepared to further evaluate and optimize the injection plan. SSLs for lithium at ARGWC-23 and molybdenum at ARAMW-8, which occurred after submittal of the Draft Remedy Selection Report, are currently under evaluation.

The next semi-annual sampling event is planned for February 2025 and will include sampling and analysis of CCR Rule Appendix III and Appendix IV constituents, as well as permit-specific GA EPD Appendix I constituents.



2024 Semi-Annual Groundwater Monitoring and Corrective Action Report

Plant Arkwright Ash Pond 2 Dry Ash Stockpile

8.0 References

8.0 References

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2024 Semi-Annual Groundwater Monitoring and Corrective Action Report
Plant Arkwright Ash Pond 2 Dry Ash Stockpile

8.0 References

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TABLES



TABLE 1
SUMMARY OF MONITORING WELL CONSTRUCTION
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

Well	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (feet NAVD88) ⁽²⁾⁽³⁾	Ground Surface Elevation (feet NAVD88) ⁽²⁾⁽³⁾	Top of Screen Elevation (feet NAVD88) ⁽⁴⁾	Screen Bottom Elevation (feet NAVD88) ⁽⁴⁾	Screen Length (feet)	Total Well Depth on Construction Log (feet below land surface)	Groundwater Zone Screened	Hydraulic Location
Detection Monitoring Wells											
ARGWA-19	12/16/2008	1063774.45	2439488.71	343.30	339.86	300.18	290.18	10.0	49.98	Bedrock	Upgradient
ARGWA-20	12/4/2008	1063732.73	2439088.01	331.28	327.73	303.18	293.18	10.0	34.85	Overburden	Upgradient
ARGWC-21	12/2/2008	1062941.24	2439112.52	309.15	305.97	291.70	281.70	10.0	24.57	Overburden	Downgradient
ARGWC-22	11/19/2019	1063039.36	2438925.04	309.95	307.01	292.01	282.01	10.0	25.00	Overburden	Downgradient
ARGWC-23	11/20/2019	1062884.38	2439202.38	307.70	304.29	289.29	279.29	10.0	25.00	Overburden	Downgradient
Assessment Monitoring Wells											
ARAMW-1	11/20/2019	1062938.38	2439120.01	308.51	305.07	271.07	261.07	10.0	44.00	Bedrock	Downgradient
ARAMW-2	11/20/2019	1062925.96	2439114.97	308.27	305.12	293.12	283.12	10.0	22.00	Overburden	Downgradient
ARAMW-7 ⁽⁵⁾	11/14/2020	1063049.07	2438913.27	309.81	307.13	269.43	259.43	10.0	48.00	Bedrock	Downgradient
ARAMW-8 ⁽⁵⁾	11/13/2020	1062895.98	2439197.40	307.36	304.53	267.83	257.83	10.0	47.00	Bedrock	Downgradient
ARAMW-9 ⁽⁶⁾	10/7/2022	1063022.92	2438935.47	309.28	306.31	213.91	203.91	10.0	102.90	Bedrock	Downgradient
Piezometers											
ARAMW-10 ⁽⁷⁾	11/9/2024	1063082.33	2438902.85	308.49	308.39	260.89	250.89	10.0	58.00	Bedrock	Downgradient
ARAMW-11 ⁽⁷⁾	11/10/2024	1063077.03	2438902.96	308.09	308.02	278.02	268.02	10.0	40.50	Overburden	Downgradient
ARAMW-12 ⁽⁷⁾	11/21/2024	1062906.98	2439199.15	309.08	305.80	255.90	240.90	15.0	65.40	Bedrock	Downgradient

Notes:

1. Horizontal locations referenced to Georgia State Plane West, North American Datum (NAD) of 1983 surveyed in June 26, 2020.
2. Vertical elevations are feet referenced to North American Vertical Datum of 1988 (NAVD88).
3. Elevations updated with revised survey certified by Donaldson & Garrett Associates on June 26, 2020.
4. Screen elevations calculated using Ground Surface Elevation surveyed on June 26, 2020.
5. ARAMW-7 and ARAMW-8 were surveyed by Donaldson & Garrett Associates and certified on December 18, 2020.
6. ARAMW-9 was surveyed by Metro Engineering & Surveying CO., Inc. on November 22, 2022.
7. ARAMW-10, ARAMW-11, and ARAMW-12 were surveyed on December 9, 2024.

TABLE 2
GROUNDWATER SAMPLING EVENT SUMMARY
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

Well ID	Hydraulic Location	Summary of Sampling Events		Status of Monitoring Well
		August 20 - 21, 2024	December 12, 2024	
ASH POND 2 DRY ASH STOCKPILE MONITORING WELL NETWORK				
ARGWA-19	Upgradient	X		Assessment Monitoring
ARGWA-20	Upgradient	X		Assessment Monitoring
ARGWC-21	Downgradient	X		Assessment Monitoring
ARGWC-22	Downgradient	X		Assessment Monitoring
ARGWC-23	Downgradient	X		Assessment Monitoring
ARAMW-1	Delineation Piezometer	X		Assessment Monitoring
ARAMW-2	Delineation Piezometer	X		Assessment Monitoring
ARAMW-7	Delineation Piezometer	X		Assessment Monitoring
ARAMW-8	Delineation Piezometer	X		Assessment Monitoring
ARAMW-9	Delineation Piezometer	X		Assessment Monitoring
ARAMW-10	Delineation Piezometer		X	Assessment Monitoring
ARAMW-11	Delineation Piezometer		X	Assessment Monitoring
ARAMW-12	Delineation Piezometer			Assessment Monitoring

Notes:

X - Indicates well sampled during monitoring event

ARAMW-10 and ARAMW-11 were installed in November 2024 and sampled in December 2024

ARAMW-12 was installed in November 2024 but could not be sampled in December 2024 due to lack of recharge and high turbidity.

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

Well ID	Top of Casing Elevation (feet NAVD88) ⁽¹⁾⁽²⁾	Depth to Water (feet below TOC) ⁽²⁾	Groundwater Elevation (feet NAVD88) ⁽¹⁾
Measurement Date	August 19, 2024		
ARGWA-19	343.30	29.31	313.99
ARGWA-20	331.28	16.86	314.42
ARGWC-21	309.15	14.40	294.75
ARGWC-22	309.95	14.25	295.70
ARGWC-23	307.70	12.67	295.03
ARAMW-1	308.51	13.76	294.75
ARAMW-2	308.27	13.76	294.51
ARAMW-7	309.81	13.26	296.55
ARAMW-8	307.36	12.27	295.09
ARAMW-9	309.28	8.64	300.64

Notes:

1. Groundwater elevations are feet referenced to North American Vertical Datum of 1988 (NAVD88).
2. Groundwater elevations were measured as depth to water from the top of casing (TOC).

TABLE 4
GROUNDWATER FLOW VELOCITY CALCULATIONS
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

Potentiometric Map Date	Location	Groundwater Elevations in Well Pairs (h ₁ , h ₂) (feet)		Change in Elevation (Δh) (feet)	Distance Measured (L) (feet)	Hydraulic Gradient (i) (feet/foot)	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 19, 2024	ARGWA-20 to ARGWC-21	314.42	294.75	19.67	792	0.025	0.74	0.20	0.092	34
	ARGWA-19 to ARAMW-1	313.99	294.75	19.24	907	0.021	0.77	0.20	0.082	30

Notes:

1. 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.
2. Hydraulic conductivity (K) for the ARGWA-20 to ARGWC-21 well pair is the geometric mean value determined via slug testing three overburden wells in the AP-2 groundwater monitoring system
3. Hydraulic conductivity (K) for the ARGWA-19 to ARAMW-1 well pair is the geometric mean value determined via slug testing three bedrock wells in the AP-2 groundwater monitoring system

TABLE 5
ANALYTICAL DATA SUMMARY - GROUNDWATER, AUGUST/DECEMBER 2024
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, GA

Sample Location		ARGWA-19	ARGWA-20	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARAMW-9	ARAMW-10	ARAMW-11
Sample Date		08/20/2024	08/20/2024	08/20/2024	08/20/2024	08/20/2024	08/20/2024	08/20/2024	08/20/2024	08/20/2024	08/20/2024	12/12/2024	12/12/2024
ANALYTE	UNITS												
APPENDIX III													
Boron	mg/L	0.0236	0.0537	1.13	3.09	0.434	1.49	1.28	2.44	0.675	0.0490	2.84	2.30
Calcium	mg/L	8.29	10.6	78.0	194	79.6	85.4	85.2	284	79.2	160	363	296
Chloride	mg/L	4.89	7.63	3.18	7.25	3.68	3.27	3.24	5.13	4.54	35.2	6.02	5.22
Fluoride	mg/L	0.0679 J	0.0488 J	0.124	0.0660 J	0.365	0.169	0.123	0.118 J	0.199	0.889	0.114	< 0.0670
pH, Field	SU	5.93	5.83	6.2	5.76	6.34	6.13	6.08	5.62	6.47	7.95	5.84	5.46
Sulfate	mg/L	7.07	16.4	219	674	80.1	211	232	1010	109	416	1080	960
TDS	mg/L	91.0	113	520	1180	328	538	564	1590	422	670	1790	1540
APPENDIX IV													
Antimony	mg/L	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100
Arsenic	mg/L	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	0.00392 J	< 0.00200	< 0.00200	< 0.00200	0.00360 J	0.00314 J
Barium	mg/L	0.0293	0.0863	0.0431	0.0223	0.105	0.0389	0.0560	0.0277	0.112	0.0105	0.0550	0.0252
Beryllium	mg/L	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	0.000318 J	< 0.000200	< 0.000200	0.000204 J	< 0.000200
Cadmium	mg/L	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	0.000327 J	< 0.000300
Chromium	mg/L	< 0.00300	0.00598 J	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300
Cobalt	mg/L	< 0.000300	< 0.000300	0.000769 J	0.00279	0.000484 J	< 0.000300	0.00166	0.0702	0.00277	< 0.000300	0.0186	0.0394
Lead	mg/L	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500
Lithium	mg/L	0.00376 J	< 0.00300	0.0119	0.0200	0.0469	0.00934 J	0.0145	0.0585	0.00586 J	0.00958 J	0.0631	0.0471
Mercury	mg/L	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670
Molybdenum	mg/L	0.000375 J	< 0.000200	< 0.000200	0.000406 J	0.0740	0.00873	0.000585 J	0.000257 J	0.195	0.00237	0.00148	0.000630 J
Combined Radium 226 + 228	pCi/L	2.65	0.969 U	1.02 U	1.04 U	2.10	2.47	2.98	3.47	0.801 U	2.80	8.18	2.91
Selenium	mg/L	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150
Thallium	mg/L	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600
APPENDIX I													
Silver	mg/L	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300	< 0.000300
Additional Parameters													
Bicarbonate Alkalinity as CaCO3	mg/L	37.5	41.2	160	136	185	178	158	58.6	251	91.9	113	48.4
Carbonate Alkalinity as CaCO3	mg/L	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725	< 0.725
Total Alkalinity as CaCO3	mg/L	37.5	41.2	160	136	185	178	158	58.6	251	91.9	113	48.4
Aluminum	mg/L	< 0.0193	0.0748	< 0.0193	0.0230 J	< 0.0193	< 0.0193	< 0.0193	0.0935	0.0279 J	0.0744	0.0460 J	0.0857
Iron	mg/L	< 0.0330	0.110	0.579	6.00	< 0.0330	0.0976 J	2.62	4.83	0.244	0.653	0.966	0.285
Iron, Dissolved	mg/L	< 0.0330	< 0.0330	0.483	6.31	< 0.0330	0.0961 J	1.83	4.98	< 0.0330	0.428	0.973	0.191
Magnesium	mg/L	3.52	5.83	39.4	80.2	14.7	39.2	36.2	79.7	33.7	11.1	80.5	86.9
Manganese	mg/L	< 0.00100	0.00343 J	0.322	17.2	0.281	0.133	0.475	13.7	0.187	0.140	22.0	16.2
Manganese, Dissolved	mg/L	< 0.00100	0.00164 J	0.307	18.0	0.239	0.131	0.348	14.9	0.187	0.136	22.6	15.6
Nitrate Nitrite	mg/L	1.74	0.835	< 0.00700	0.122	0.975	< 0.00700	0.0150 J	< 0.00700	2.98	< 0.00700	< 0.00700	< 0.00700
Potassium	mg/L	2.03	1.51	6.12	4.45	2.08	5.38	6.25	9.23	6.91	6.00	8.49	7.21
Sodium	mg/L	9.61	11.5	20.2	26.6	16.1	20.0	19.0	27.6	17.7	75.0	39.0	29.5

mg/L - milligrams per liter
pCi/L - picocuries per liter
SU - Standard Units
NA - Indicates not analyzed

J - The result is an estimated concentration. "J" qualifiers are applied by the laboratory when the concentration reported is above the method detection limit, but below the laboratory reporting limit.
H - Sample analysis performed beyond the recognized method holding time.
Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.

TABLE 6
ANALYTICAL DATA SUMMARY - SURFACE WATER, AUGUST 2024
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, GA

Sample Location		BC-0.8a	BC-0.5.7	BC-0.5.6	BC-0.5.5	BC-BR
Sample Date		08/12/2024	08/12/2024	08/12/2024	08/12/2024	08/12/2024
ANALYTE	UNITS					
APPENDIX III						
Boron	mg/L	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Calcium	mg/L	10.8	11.7	12.3	12.2	11.4
Chloride	mg/L	7.6	7.5	7.6	7.6	7.6
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
pH, Field	SU	7.35	7.51	7.43	7.45	7.55
Sulfate	mg/L	3.8	8.7	7.6	7.6	7.5
TDS	mg/L	106	127	141	113	130
APPENDIX IV						
Cobalt	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Lithium	mg/L	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030
Molybdenum	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Additional Parameters						
Alkalinity Total as CaCO ₃	mg/L	55.9	58.1	57.2	56.3	56.9
Bicarbonate Alkalinity as CaCO ₃	mg/L	55.9	58.1	57.2	56.3	56.9
Magnesium	mg/L	4.8	5.0	5.2	5.2	4.9
Potassium	mg/L	2.4	2.3	2.5	2.4	2.3
Sodium	mg/L	8.8	8.5	8.9	9.0	8.4

Notes:

mg/L - milligrams per liter

pCi/L - picocuries per liter

SU - Standard Units

NA - Indicates not analyzed

< indicates the substance was not detected above the reporting limit (RL). The value displayed is the RL.

J - The result is an estimated concentration. "J" qualifiers are applied by the laboratory when the concentration reported is above the method detection limit, but below the laboratory reporting limit.

H - Sample analysis performed beyond the recognized method holding time.

Radium data are a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.

TABLE 7
SUMMARY OF GROUNDWATER PROTECTION STANDARDS
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

PLANT ARKWRIGHT AP-2 DAS GWPS					
Constituent Name	UNITS	MCL	CCR-Rule Specified ^[1]	Site Specific Background Limit ^[2] August 2024	State GWPS August 2024
Antimony	mg/L	0.006		0.003	0.006
Arsenic	mg/L	0.01		0.005	0.01
Barium	mg/L	2		0.11	2
Beryllium	mg/L	0.004		0.0005	0.004
Cadmium	mg/L	0.005		0.001	0.005
Chromium	mg/L	0.1		0.01	0.1
Cobalt	mg/L	n/a	0.006	0.001	0.006
Combined Radium	pCi/L	5		2.65	5
Fluoride	mg/L	4		0.15	4
Lead	mg/L	n/a	0.015	0.002	0.015
Lithium	mg/L	n/a	0.04	0.013	0.04
Mercury	mg/L	0.002		0.0002	0.002
Molybdenum	mg/L	n/a	0.1	0.001	0.1
Selenium	mg/L	0.05		0.005	0.05
Silver	mg/L	n/a		0.001	0.001
Thallium	mg/L	0.002		0.002	0.002

Notes:

mg/L - milligrams per liter

pCi/L - picoCuries per liter

n/a - constituent does not have an established MCL

MCL - Maximum Contaminant Level

GWPS - Groundwater Protection Standard

CCR - Coal Combustion Residuals

GA EPD = Georgia Environmental Protection Division

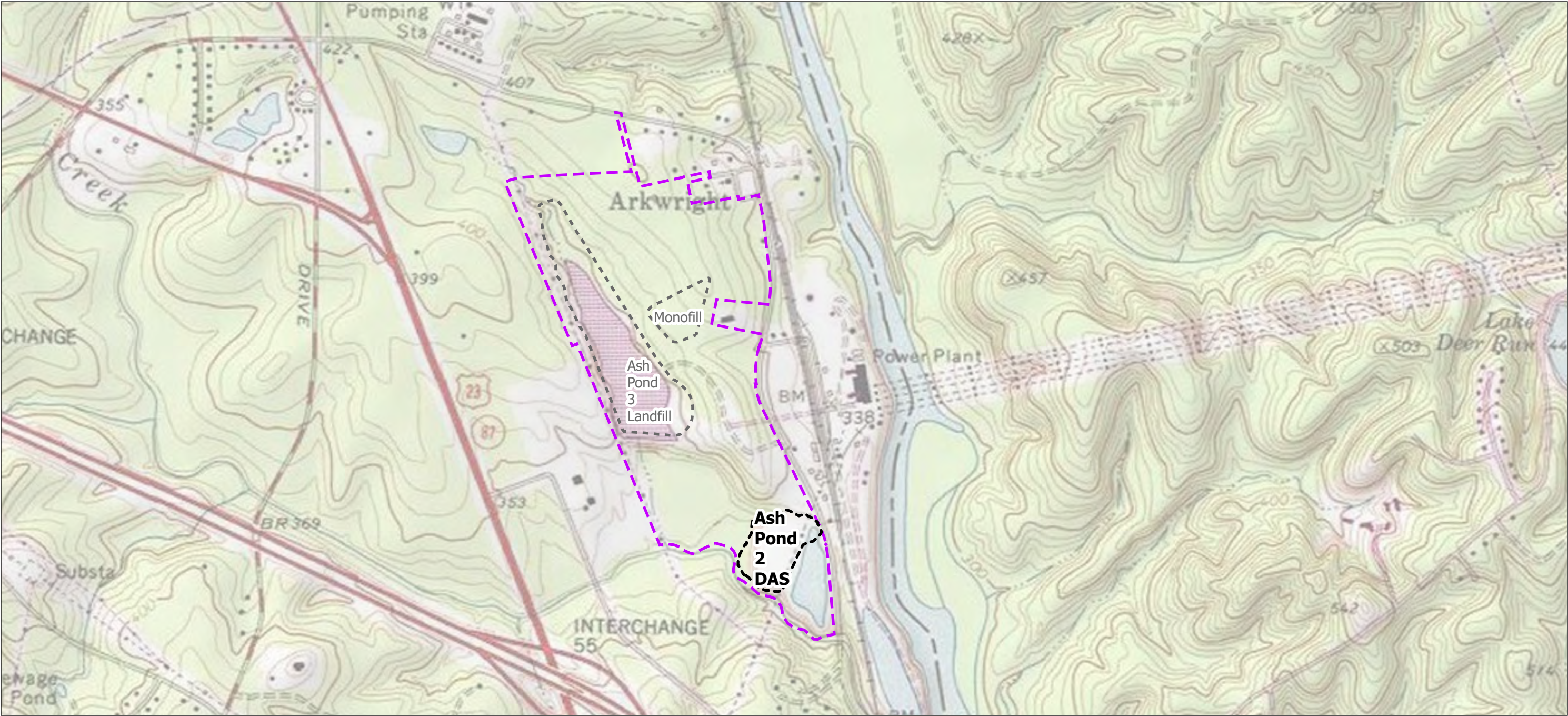
AP-2 DAS = Ash Pond 2 Dry Ash Stockpile

[1] GA EPD incorporated the US EPA GWPS into the current GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a) on February 22, 2022.

[2] The background limits are evaluated when determining the GWPS under 40 CFR § 257.95(h) and 391-3-4-.10(6)(a).

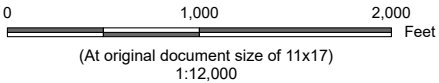
FIGURES





Notes
1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
2. Data Sources: Tax Parcel and AP-2 Landfill Boundary provided by Southern Company Services and Wood Environment & Infrastructure Solutions
3. Background: Copyright © 2013 National Geographic Society, i-cubed, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS

- Legend**
- Approximate Property Boundary
 - Ash Pond 2 Dry Ash Stockpile (DAS) (approximate location)
 - Ash Pond 3 Landfill and Monofill (approximate location)



Project Location
Macon, Georgia

Prepared by DMB on 1/9/2025
TR by CS on 1/9/2025
IR by JK on 1/9/2025

Client/Project
Georgia Power
2024 Semi-Annual Groundwater Monitoring and Corrective Action
Report - Plant Arkwright Ash Pond 2 Dry Ash Stockpile

175569434

Figure No.
1

Title
Site Location Map



- Legend
- Detection Monitoring Well
 - Assessment Monitoring Well
 - Piezometer Installed November 2024
 - Surface Water Sampling Location
 - Beaverdam Creek/Ocmulgee River (Approximate)
 - Approximate Property Boundary
 - Ash Pond 2 Dry Ash Stockpile (DAS) (approximate location)
 - Limit of Client Imagery (dated 1/22/2024)

Piezometers ARAMW-10, ARAMW-11 and ARAMW-12 were installed in November 2024.

0 200 400 Feet
(At original document size of 11x17)
1:2,400



Project Location
Macon, Georgia

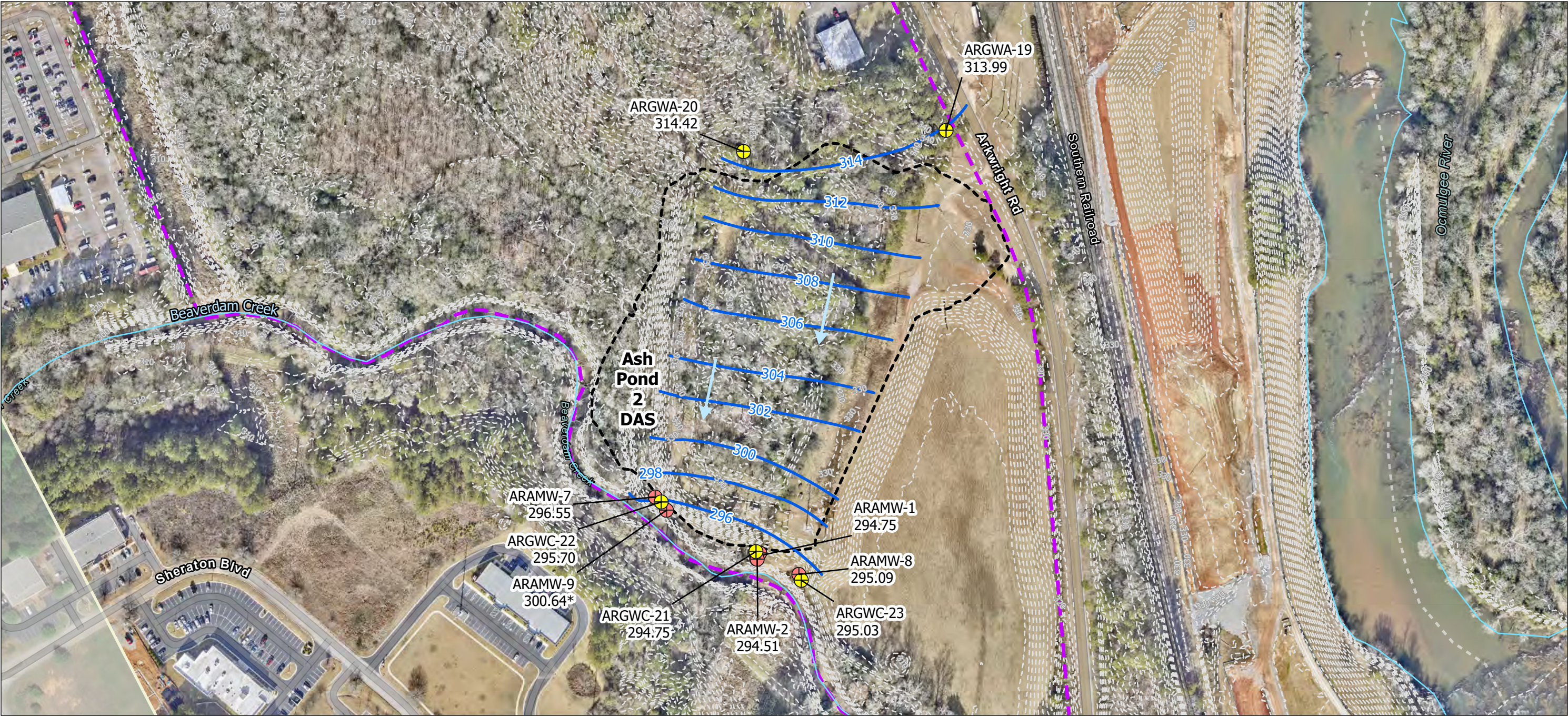
Prepared by DMB on 2/10/2025
TR by CS on 2/10/2025
IR by JK on 2/10/2025

Client/Project
Georgia Power
2024 Semi-Annual Groundwater Monitoring and Corrective Action
Report - Plant Arkwright Ash Pond 2 Dry Ash Stockpile

175569434

Figure No.
2

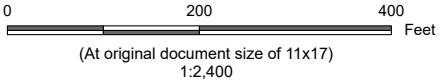
Title
**Detection Monitoring Network Well,
Assessment Monitoring Well, Piezometer, and
Sampling Locations Map**



Notes
1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
2. Data Sources: Ash Pond Boundaries, Monitoring Wells, Property Boundary, Topography, and Beaverdam Creek provided by Southern Company Services and Wood Environment & Infrastructure Solutions; Contours, Flow Arrow, and Ocmulgee River provided by Stantec
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, TomTom, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS, USFWS, Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USEWS. Plant imagery provided by client and is dated 1/22/2024

- Legend**
- Detection Monitoring Well
 - Assessment Monitoring Well
 - Interpreted Groundwater Flow Direction
 - Potentiometric Surface Contour (feet (ft) NAVD88)
 - Beaverdam Creek/Ocmulgee River (Approximate)
 - Topographic Contour 2024 (2 ft interval)
 - Approximate Property Boundary
 - Ash Pond 2 Dry Ash Stockpile (DAS) (approximate location)
 - Limit of Client Imagery (dated 1/22/2024)

294.75 Groundwater Elevation (ft NAVD88)
An "*" indicates groundwater elevation for ARAMW-9 was not used in contouring.
NAVD88 - North American Vertical Datum of 1988



Project Location
Macon, Georgia

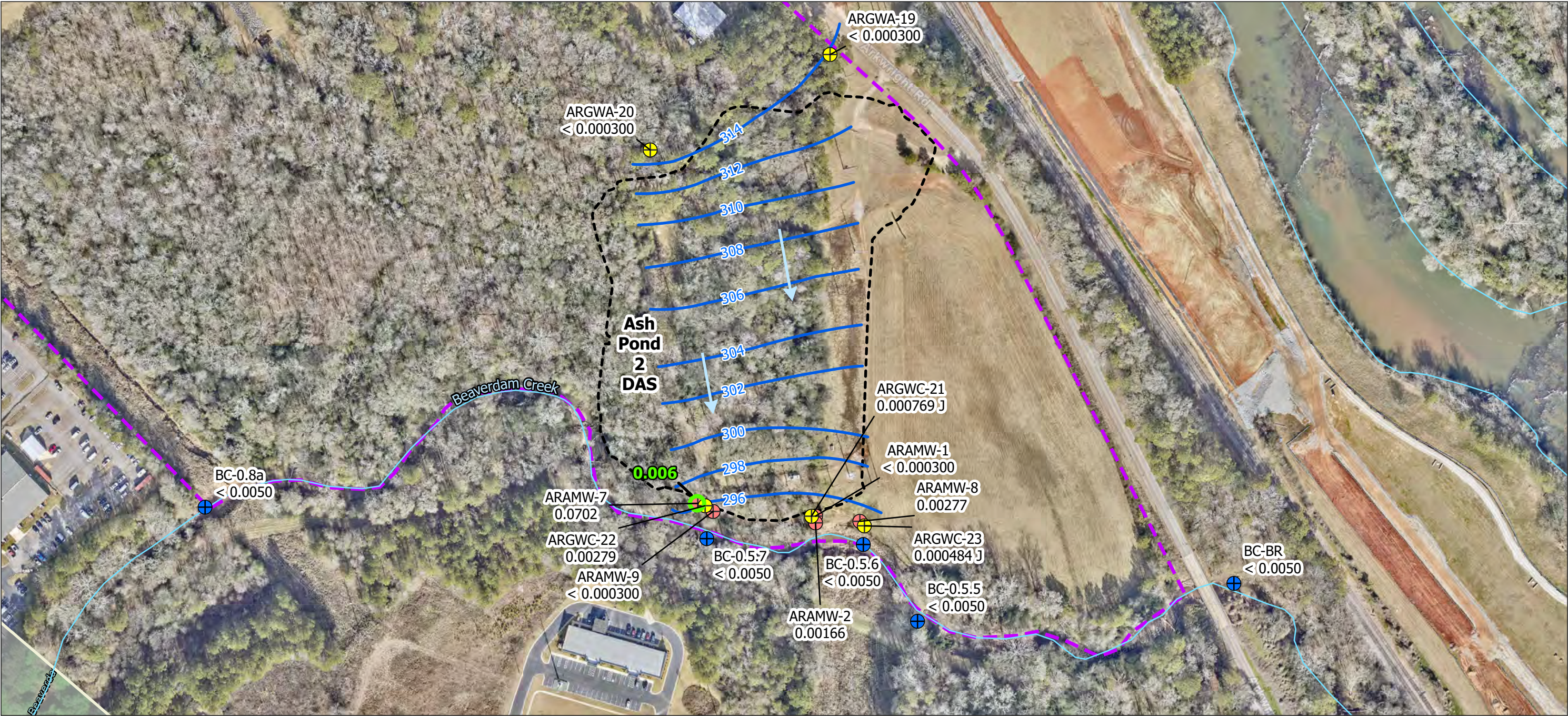
Prepared by DMB on 2/10/2025
TR by CS on 2/10/2025
IR by JK on 2/10/2025

Client/Project
Georgia Power
2024 Semi-Annual Groundwater Monitoring and Corrective Action Report - Plant Arkwright Ash Pond 2 Dry Ash Stockpile

175569434

Figure No.
3

Title
**Potentiometric Surface Contour Map
Ash Pond 2 DAS – August 19, 2024**



Notes
1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
2. Data Sources: Ash Pond Boundaries, Monitoring Wells, Property Boundary, Topography, and Beaverdam Creek provided by Southern Company Services and Wood Environment & Infrastructure Solutions; Contours, Flow Arrow, and Ocmulgee River provided by Stantec
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, TomTom, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS, USFWS, Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USEWS. Plant imagery provided by client and is dated 1/22/2024

- Legend**
- Detection Monitoring Well
 - Assessment Monitoring Well
 - Surface Water Sampling Location
 - Cobalt Concentration Contour Aug 2024 (mg/L)
 - Potentiometric Surface Contour (feet (ft) NAVD88)
 - Interpreted Groundwater Flow Direction
 - Beaverdam Creek/Ocmulgee River (Approximate)
 - Approximate Property Boundary
 - Ash Pond 2 Dry Ash Stockpile (DAS) (approximate location)
 - Limit of Client Imagery (dated 1/22/2024)
- 0.0702 Cobalt Concentration milligrams per Liter (mg/L)

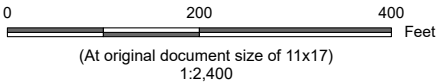
Isoconcentration Notes:
Cobalt concentration data from groundwater and surface water samples collected during the August 2024 monitoring event.

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.

GWPS - Groundwater Protection Standard

mg/L - milligrams per liter

Analyte	Units	GWPS
Cobalt	mg/L	0.006



Project Location
Macon, Georgia

Client/Project
Georgia Power
2024 Semi-Annual Groundwater Monitoring and Corrective Action Report - Plant Arkwright Ash Pond 2 Dry Ash Stockpile

Figure No.
4

Title
Isoconcentration Map for Cobalt AP-2 DAS – August 2024



Notes
1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
2. Data Sources: Ash Pond Boundaries, Monitoring Wells, Property Boundary, Topography, and Beaverdam Creek provided by Southern Company Services and Wood Environment & Infrastructure Solutions; Contours, Flow Arrow, and Ocmulgee River provided by Stantec
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, TomTom, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS, USFWS, Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USEWS. Plant imagery provided by client and is dated 1/22/2024

- Legend**
- Detection Monitoring Well
 - Assessment Monitoring Well
 - Surface Water Sampling Location
 - Lithium Concentration Contour Aug 2024 (mg/L)
 - Potentiometric Surface Contour (feet (ft) NAVD88)
 - Interpreted Groundwater Flow Direction
 - Beaverdam Creek/Ocmulgee River (Approximate)
 - Approximate Property Boundary
 - Ash Pond 2 Dry Ash Stockpile (DAS) (approximate location)
 - Limit of Client Imagery (dated 1/22/2024)
- 0.00934 (J) Lithium Concentration milligrams per Liter (mg/L)

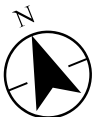
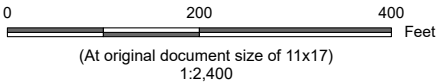
Isoconcentration Notes:
Lithium concentration data from groundwater and surface water samples collected during the August 2024 monitoring event.

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.

GWPS - Groundwater Protection Standard

mg/L - milligrams per liter

Analyte	Units	GWPS
Lithium	mg/L	0.04

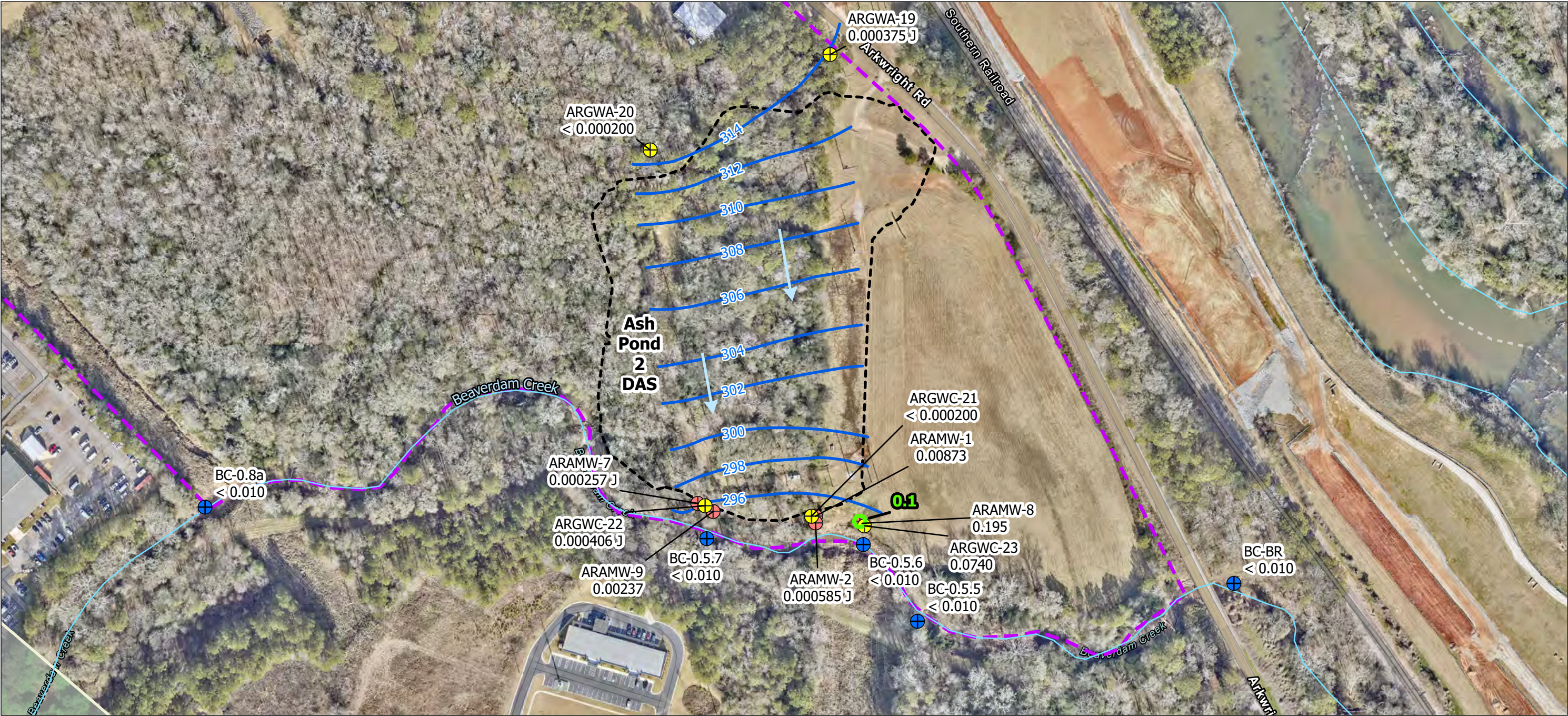


Project Location
Macon, Georgia

Client/Project
Georgia Power
2024 Semi-Annual Groundwater Monitoring and Corrective Action Report - Plant Arkwright Ash Pond 2 Dry Ash Stockpile

Figure No.
5

Title
**Isoconcentration Map for Lithium
AP-2 DAS – August 2024**



Notes
1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
2. Data Sources: Ash Pond Boundaries, Monitoring Wells, Property Boundary, Topography, and Beaverdam Creek provided by Southern Company Services and Wood Environment & Infrastructure Solutions; Contours, Flow Arrow, and Ocmulgee River provided by Stantec
3. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS, Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USEWS. Plant imagery provided by client and is dated 1/22/2024

- Legend**
- Detection Monitoring Well
 - Assessment Monitoring Well
 - Surface Water Sampling Location
 - Molybdenum Concentration Contour Aug 2024 (mg/L)
 - Potentiometric Surface Contour (feet (ft) NAVD88)
 - Interpreted Groundwater Flow Direction
 - Beaverdam Creek/Ocmulgee River (Approximate)
 - Approximate Property Boundary
 - Ash Pond 2 Dry Ash Stockpile (DAS) (approximate location)
 - Limit of Client Imagery (dated 1/22/2024)
- 0.00873 (J) Molybdenum Concentration milligrams per Liter (mg/L)

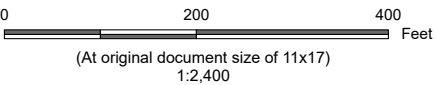
Isoconcentration Notes:
Molybdenum concentration data from groundwater and surface water samples collected during the August 2024 monitoring event.

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.

GWPS - Groundwater Protection Standard

mg/L - milligrams per liter

Analyte	Units	GWPS
Molybdenum	mg/L	0.1



Project Location
Macon, Georgia

Client/Project
Georgia Power
2024 Semi-Annual Groundwater Monitoring and Corrective Action Report - Plant Arkwright Ash Pond 2 Dry Ash Stockpile

Figure No.
6

Title
Isoconcentration Map for Molybdenum
AP-2 DAS – August 2024

Appendix A

Well Inspections and Maintenance Records



	Location/Identification				Protective Casing				
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
Well ID:									
AP-2									
ARGWA-19	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARGWA-20	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARGWC-21	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARGWC-22	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARGWC-23	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARAMW-1	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARAMW-2	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARAMW-7	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARAMW-8	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
ARAMW-9	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes

Completed by ZL/JB 8/19/24
Checked by AS 8/22/24

	Surface Pad			Internal Casing			Corrective actions as needed, by date:
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure	
Well ID:							
AP-2							
ARGWA-19	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARGWA-20	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARGWC-21	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARGWC-22	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARGWC-23	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARAMW-1	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARAMW-2	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARAMW-7	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARAMW-8	Yes	Yes	Yes	Yes	Yes	Yes	NA
ARAMW-9	Yes	Yes	Yes	Yes	Yes	Yes	NA



MEMORANDUM

Date: January 31, 2025

To: Joju Abraham – Southern Company Services

CC: Ben Hodges – Georgia Power Company

From: Stantec Consulting Services Inc.

Subject: Plant Arkwright Ash Pond 2 Dry Ash Stockpile (DAS)
Well Maintenance and Repair Documentation
Georgia Power Company

Stantec Consulting Services Inc. (Stantec) has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant Arkwright during the semi-annual reporting period. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GAEPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
AP-2 DAS	11/20/2024	ARAMW-1	Damaged well pad was replaced
AP-2 DAS	11/20/2024	ARAMW-2	Damaged well pad was replaced
AP-2 DAS	11/21/2024	ARAMW-7	Damaged well pad was replaced, stick-up well was converted to flush-mount completion
AP-2 DAS	11/21/2024	ARAMW-9	Damaged well pad was replaced, stick-up well was converted to flush-mount completion
AP-2 DAS	11/20/2024	ARGWC-21	Damaged well pad was replaced, bent portion of PVC well riser above grade was replaced and new stick-up protective cover was installed
AP-2 DAS	11/21/2024	ARGWC-22	Damaged well pad was replaced, stick-up well was converted to flush-mount completion

Maintenance and repairs are also documented in the 2024 Semi-Annual Groundwater Monitoring Report.

Appendix B

Field Sampling Data and Analytical Data Reports



B.1 Well Redevelopment Logs



Low-Flow Test Report:

Test Date / Time: 8/14/2024 8:49:39 AM
Project: Arkwright AP-2 development
Operator Name: Zach Levy

Location Name: Arkwright, AP-2, ARAMW-1 Latitude: 32.91276931000096 Longitude: -83.69873045999931 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 37.4 ft Total Depth: 47.4 ft Initial Depth to Water: 13.74 ft	Pump Type: Reclaimer pump Tubing Type: LDPE Pump Intake From TOC: 45.28 ft Estimated Total Volume Pumped: 84087.5 ml Flow Cell Volume: 90 ml Final Flow Rate: 450 ml/min Final Draw Down: 0.75 ft	Instrument Used: Aqua TROLL 400 Serial Number: 968202
---	--	--

Test Notes:
Redevelopment by over-pumping. Pump was placed at the bottom of the screen then pump was moved to top of screen, followed by the screen mid point.and pumped until stability was achieved.5 buckets pumped plus 2 gallons

Weather Conditions:
Cloudy

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/14/2024 8:49 AM	00:00	6.14 pH	22.30 °C	643.39 µS/cm	1.77 mg/L	8.79 NTU	116.2 mV	14.55 ft	750.00 ml/min
8/14/2024 8:59 AM	10:00	6.12 pH	19.94 °C	732.02 µS/cm	1.03 mg/L	5.55 NTU	97.0 mV	14.45 ft	750.00 ml/min
8/14/2024 9:09 AM	20:00	6.12 pH	19.81 °C	735.36 µS/cm	0.93 mg/L	13.50 NTU	98.3 mV	14.75 ft	750.00 ml/min
8/14/2024 9:19 AM	30:00	6.11 pH	19.98 °C	736.00 µS/cm	0.94 mg/L	16.60 NTU	97.4 mV	14.45 ft	750.00 ml/min
8/14/2024 9:24 AM	35:07	6.12 pH	20.05 °C	726.08 µS/cm	1.03 mg/L	16.90 NTU	115.4 mV	14.60 ft	750.00 ml/min
8/14/2024 9:29 AM	40:07	6.12 pH	19.98 °C	726.79 µS/cm	1.03 mg/L	15.80 NTU	99.0 mV	14.45 ft	750.00 ml/min
8/14/2024 9:34 AM	45:07	6.12 pH	19.89 °C	734.09 µS/cm	1.01 mg/L	13.10 NTU	117.4 mV	14.54 ft	750.00 ml/min
8/14/2024 9:39 AM	50:07	6.12 pH	19.80 °C	733.65 µS/cm	0.91 mg/L	12.20 NTU	99.6 mV	14.42 ft	750.00 ml/min
8/14/2024 9:44 AM	55:07	6.12 pH	19.87 °C	735.25 µS/cm	0.91 mg/L	11.30 NTU	99.0 mV	14.35 ft	750.00 ml/min
8/14/2024 9:49 AM	01:00:07	6.12 pH	19.89 °C	735.13 µS/cm	0.98 mg/L	11.10 NTU	117.9 mV	14.55 ft	750.00 ml/min
8/14/2024 9:54 AM	01:05:07	6.12 pH	19.71 °C	732.65 µS/cm	0.95 mg/L	11.60 NTU	99.9 mV	14.43 ft	750.00 ml/min
8/14/2024 9:59 AM	01:10:07	6.11 pH	20.20 °C	733.26 µS/cm	0.90 mg/L	12.00 NTU	99.6 mV	14.56 ft	450.00 ml/min

8/14/2024 10:04 AM	01:15:07	6.10 pH	20.21 °C	733.14 µS/cm	0.61 mg/L	10.90 NTU	119.7 mV	14.61 ft	450.00 ml/min
8/14/2024 10:09 AM	01:20:07	6.10 pH	20.23 °C	731.18 µS/cm	0.70 mg/L	10.70 NTU	100.8 mV	14.47 ft	450.00 ml/min
8/14/2024 10:14 AM	01:25:07	6.10 pH	20.03 °C	732.65 µS/cm	0.67 mg/L	7.76 NTU	100.8 mV	14.51 ft	450.00 ml/min
8/14/2024 10:19 AM	01:30:07	6.10 pH	20.03 °C	730.61 µS/cm	0.63 mg/L	3.60 NTU	100.6 mV	14.46 ft	450.00 ml/min
8/14/2024 10:24 AM	01:35:07	6.09 pH	20.15 °C	730.25 µS/cm	0.59 mg/L	2.35 NTU	100.3 mV	14.52 ft	450.00 ml/min
8/14/2024 10:29 AM	01:40:07	6.08 pH	20.34 °C	733.53 µS/cm	0.72 mg/L	1.61 NTU	100.9 mV	14.40 ft	450.00 ml/min
8/14/2024 10:34 AM	01:45:07	6.08 pH	20.40 °C	730.08 µS/cm	0.73 mg/L	2.53 NTU	124.4 mV	14.55 ft	450.00 ml/min
8/14/2024 10:39 AM	01:50:07	6.09 pH	20.53 °C	729.24 µS/cm	0.78 mg/L	3.71 NTU	103.8 mV	14.48 ft	450.00 ml/min
8/14/2024 10:44 AM	01:55:07	6.08 pH	20.66 °C	729.79 µS/cm	0.69 mg/L	4.79 NTU	104.3 mV	14.39 ft	450.00 ml/min
8/14/2024 10:49 AM	02:00:07	6.09 pH	20.51 °C	729.44 µS/cm	0.66 mg/L	4.70 NTU	104.3 mV	14.45 ft	450.00 ml/min
8/14/2024 10:54 AM	02:05:07	6.08 pH	20.61 °C	730.39 µS/cm	0.69 mg/L	4.84 NTU	104.4 mV	14.52 ft	450.00 ml/min
8/14/2024 10:59 AM	02:10:07	6.07 pH	20.41 °C	728.65 µS/cm	0.70 mg/L	4.51 NTU	126.5 mV	14.55 ft	450.00 ml/min
8/14/2024 11:04 AM	02:15:07	6.07 pH	20.38 °C	730.04 µS/cm	0.71 mg/L	4.50 NTU	105.5 mV	14.49 ft	450.00 ml/min
8/14/2024 11:09 AM	02:20:07	6.06 pH	20.51 °C	732.08 µS/cm	0.70 mg/L	4.49 NTU	105.3 mV	14.49 ft	450.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/13/2024 2:50:05 PM
Project: Arkwright AP-2
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, ARAMW-2 Latitude: 32.921468802958174 Longitude: -83.7021274807793 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 15.2 ft Total Depth: 25.2 ft Initial Depth to Water: 13.81 ft	Pump Type: Reclaimer Pump Tubing Type: LDPE Pump Intake From TOC: 24.8 ft Estimated Total Volume Pumped: 71300 ml Flow Cell Volume: 90 ml Final Flow Rate: 380 ml/min Final Draw Down: 0.18 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965586
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Test Notes:
Low-Flow Test Report 1/2. Redevelopment by over-pumping. lowered pump to bottom of screen and pumped at 1000 mL per minute. Brought to the top of the screen and then slowly lowered. Finished in the middle of the screen and lowered purge rate.

Weather Conditions:
Sunny, 92F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/13/2024 2:50 PM	00:00	6.04 pH	21.01 °C	839.79 µS/cm	0.33 mg/L	26.10 NTU	-55.1 mV	13.99 ft	1,000.00 ml/min
8/13/2024 2:55 PM	05:00	6.05 pH	20.48 °C	872.91 µS/cm	0.42 mg/L	21.00 NTU	-78.6 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:00 PM	10:00	6.06 pH	20.35 °C	898.22 µS/cm	0.46 mg/L	20.90 NTU	-43.5 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:05 PM	15:00	6.06 pH	20.43 °C	926.05 µS/cm	0.44 mg/L	18.00 NTU	-38.9 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:10 PM	20:00	6.07 pH	20.40 °C	946.80 µS/cm	0.48 mg/L	16.10 NTU	-38.7 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:15 PM	25:00	6.08 pH	20.30 °C	967.11 µS/cm	0.44 mg/L	14.90 NTU	-36.0 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:20 PM	30:00	6.08 pH	20.32 °C	985.19 µS/cm	0.47 mg/L	13.90 NTU	-34.6 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:25 PM	35:00	6.08 pH	20.23 °C	994.44 µS/cm	0.42 mg/L	13.30 NTU	-34.9 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:30 PM	40:00	6.09 pH	20.22 °C	1,005.2 µS/cm	0.45 mg/L	12.00 NTU	-33.3 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:35 PM	45:00	6.09 pH	20.39 °C	1,016.1 µS/cm	0.44 mg/L	9.79 NTU	-33.7 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:40 PM	50:00	6.09 pH	20.32 °C	1,024.2 µS/cm	0.44 mg/L	11.00 NTU	-33.0 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:45 PM	55:00	6.09 pH	20.30 °C	1,033.0 µS/cm	0.45 mg/L	9.37 NTU	-31.6 mV	13.99 ft	1,000.00 ml/min

8/13/2024 3:50 PM	01:00:00	6.09 pH	20.33 °C	1,038.8 µS/cm	0.43 mg/L	8.94 NTU	-31.4 mV	13.99 ft	1,000.00 ml/min
8/13/2024 3:55 PM	01:05:00	6.10 pH	20.30 °C	1,040.6 µS/cm	0.46 mg/L	9.41 NTU	-55.7 mV	13.99 ft	500.00 ml/min
8/13/2024 4:00 PM	01:10:00	6.07 pH	21.50 °C	1,046.7 µS/cm	0.15 mg/L	10.10 NTU	-68.1 mV	13.99 ft	380.00 ml/min
8/13/2024 4:05 PM	01:15:00	6.07 pH	21.41 °C	1,038.8 µS/cm	0.06 mg/L	12.50 NTU	-74.4 mV	13.99 ft	380.00 ml/min
8/13/2024 4:10 PM	01:20:00	6.13 pH	21.55 °C	1,039.5 µS/cm	0.05 mg/L	15.00 NTU	-43.2 mV	13.99 ft	380.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/14/2024 9:00:06 AM
Project: Arkwright AP-2
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, ARAMW-2 Latitude: 32.921468802958174 Longitude: -83.7021274807793 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 15.2 ft Total Depth: 25.2 ft Initial Depth to Water: 13.83 ft	Pump Type: Reclaimer Pump Tubing Type: LDPE Pump Intake From TOC: 24.8 ft Estimated Total Volume Pumped: 71991.5 ml Flow Cell Volume: 90 ml Final Flow Rate: 430 ml/min Final Draw Down: 0.12 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965586
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Test Notes:
Log 2/2. Redevelopment by over-pumping. Lowered pump to bottom and pumped at 670 mL/min. Brought to the top of the screen and slowly lowered. Finished mid-screen and lowered purge rate. Missing RDO readings associated with probe communication issue.

Weather Conditions:
Overcast, 77F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/14/2024 9:00 AM	00:00	6.10 pH	20.25 °C	960.38 µS/cm	0.69 mg/L	14.60 NTU	16.7 mV	13.89 ft	670.00 ml/min
8/14/2024 9:10 AM	10:01	6.10 pH	20.30 °C	980.98 µS/cm	0.52 mg/L	10.90 NTU	14.9 mV	13.89 ft	670.00 ml/min
8/14/2024 9:15 AM	15:01	6.10 pH	20.35 °C	995.18 µS/cm	0.47 mg/L	8.89 NTU	13.7 mV	13.89 ft	670.00 ml/min
8/14/2024 9:20 AM	20:01	6.11 pH	20.55 °C	1,005.8 µS/cm	0.48 mg/L	9.48 NTU	8.6 mV	13.89 ft	670.00 ml/min
8/14/2024 9:25 AM	25:01	6.16 pH	20.57 °C	1,006.7 µS/cm	3.97 mg/L	189.00 NTU	16.4 mV	13.89 ft	670.00 ml/min
8/14/2024 9:30 AM	30:01	6.11 pH	20.48 °C	1,041.7 µS/cm	1.09 mg/L	123.00 NTU	8.8 mV	13.89 ft	670.00 ml/min
8/14/2024 9:35 AM	35:01	6.11 pH	20.47 °C	1,060.2 µS/cm	0.98 mg/L	75.70 NTU	15.3 mV	13.89 ft	670.00 ml/min
8/14/2024 9:40 AM	40:03	6.10 pH	20.39 °C	1,063.2 µS/cm	0.87 mg/L	53.80 NTU	14.7 mV	13.89 ft	670.00 ml/min
8/14/2024 9:50 AM	50:03	6.11 pH	20.30 °C	1,083.9 µS/cm	0.56 mg/L	16.70 NTU	12.1 mV	12.10 ft	670.00 ml/min
8/14/2024 10:00 AM	01:00:03	6.11 pH	20.88 °C	1,097.1 µS/cm	0.41 mg/L	21.40 NTU	5.6 mV	13.95 ft	670.00 ml/min
8/14/2024 10:10 AM	01:10:03	6.10 pH	20.96 °C	1,099.3 µS/cm	0.25 mg/L	13.60 NTU	9.0 mV	13.95 ft	670.00 ml/min
8/14/2024 10:20 AM	01:20:03	6.09 pH	21.01 °C	1,105.0 µS/cm	0.25 mg/L	8.88 NTU	10.9 mV	13.95 ft	670.00 ml/min

8/14/2024 10:22 AM	01:22:27	6.10 pH	21.58 °C	1,111.7 µS/cm	0.28 mg/L	8.15 NTU	8.7 mV	13.95 ft	670.00 ml/min
8/14/2024 10:27 AM	01:27:27	6.10 pH	21.48 °C	1,105.2 µS/cm	0.23 mg/L	6.96 NTU	13.6 mV	13.95 ft	670.00 ml/min
8/14/2024 10:32 AM	01:32:27	6.09 pH	21.64 °C	1,106.4 µS/cm	0.20 mg/L	5.37 NTU	13.7 mV	13.95 ft	430.00 ml/min
8/14/2024 10:37 AM	01:37:27	6.10 pH	21.49 °C	1,112.1 µS/cm	0.20 mg/L	4.66 NTU	13.4 mV	13.95 ft	430.00 ml/min
8/14/2024 10:42 AM	01:42:27	6.09 pH	22.19 °C	1,110.7 µS/cm		4.84 NTU	15.2 mV	13.95 ft	430.00 ml/min
8/14/2024 10:47 AM	01:47:27	6.10 pH	21.74 °C	1,108.4 µS/cm		4.17 NTU	13.6 mV	13.95 ft	430.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/14/2024 12:18:20 PM
Project: Arkwright AP-2 development
Operator Name: Zach Levy

Location Name: Arkwright, AP-2, ARAMW-7 Latitude: 32.92168457962877 Longitude: -83.70282886021718 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 40.4 ft Total Depth: 50.75 ft Initial Depth to Water: 13.34 ft	Pump Type: Reclaimer pump Tubing Type: LDPE Pump Intake From TOC: 50.75 ft Estimated Total Volume Pumped: 35245 ml Flow Cell Volume: 90 ml Final Flow Rate: 700 ml/min Final Draw Down: 1.9 ft	Instrument Used: Aqua TROLL 400 Serial Number: 968202
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Test Notes:
Redevelopment by over-pumping. Pump was set at the bottom of the screen, then moved to top of screen, finally moved to mid screen and stability was reached. 3 x 5 gal buckets pumped plus 2 gallons

Weather Conditions:
Cloudy, 77F

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/14/2024 12:18 PM	00:00	5.70 pH	21.95 °C	1,606.2 µS/cm	1.51 mg/L	6.61 NTU	88.2 mV	15.00 ft	700.00 ml/min
8/14/2024 12:28 PM	10:00	5.61 pH	19.09 °C	1,741.8 µS/cm	1.02 mg/L	4.05 NTU	92.1 mV	15.01 ft	700.00 ml/min
8/14/2024 12:33 PM	15:21	5.61 pH	19.07 °C	1,755.0 µS/cm	1.11 mg/L	3.44 NTU	104.0 mV	15.05 ft	700.00 ml/min
8/14/2024 12:38 PM	20:21	5.60 pH	19.19 °C	1,766.9 µS/cm	1.08 mg/L	2.49 NTU	93.7 mV	15.25 ft	700.00 ml/min
8/14/2024 12:43 PM	25:21	5.53 pH	19.14 °C	1,750.8 µS/cm	1.29 mg/L	7.19 NTU	120.3 mV	15.20 ft	700.00 ml/min
8/14/2024 12:48 PM	30:21	5.56 pH	19.14 °C	1,752.6 µS/cm	0.97 mg/L	4.94 NTU	113.4 mV	15.23 ft	700.00 ml/min
8/14/2024 12:53 PM	35:21	5.58 pH	19.09 °C	1,768.5 µS/cm	0.99 mg/L	2.18 NTU	96.5 mV	15.29 ft	700.00 ml/min
8/14/2024 12:58 PM	40:21	5.58 pH	19.09 °C	1,773.6 µS/cm	0.93 mg/L	1.92 NTU	107.6 mV	15.35 ft	700.00 ml/min
8/14/2024 1:03 PM	45:21	5.59 pH	19.16 °C	1,775.9 µS/cm	0.89 mg/L	1.61 NTU	107.0 mV	15.21 ft	700.00 ml/min
8/14/2024 1:08 PM	50:21	5.58 pH	19.26 °C	1,781.4 µS/cm	0.94 mg/L	1.66 NTU	107.1 mV	15.24 ft	700.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/13/2024 9:50:55 AM
Project: Arkwright AP-2 development
Operator Name: Zach Levy

Location Name: Arkwright ARAMW-8 Latitude: 32.91246794999996 Longitude: -83.69824980999995 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 39.5 ft Total Depth: 49.55 ft Initial Depth to Water: 12.34 m	Pump Type: Reclaimer pump Tubing Type: LDPE Pump Intake From TOC: 49.5 ft Estimated Total Volume Pumped: 36060 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 1.202 m	Instrument Used: Aqua TROLL 400 Serial Number: 968202
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Test Notes:
Redevelopment by over-pumping. Started pump at bottom. Moved to top of screen and finished in the middle.Total pumped: approximately 12.5 gals

Weather Conditions:
Clear, 80F

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/13/2024 9:50 AM	00:00	6.33 pH	23.91 °C	165.58 µS/cm	3.62 mg/L	36.50 NTU	80.2 mV	36.95 ft	650.00 ml/min
8/13/2024 10:00 AM	10:00	6.44 pH	21.18 °C	266.05 µS/cm	3.21 mg/L	22.40 NTU	59.3 mV	39.72 ft	650.00 ml/min
8/13/2024 10:10 AM	20:00	6.48 pH	21.11 °C	352.33 µS/cm	2.87 mg/L	18.30 NTU	49.2 mV	40.32 ft	400.00 ml/min
8/13/2024 10:12 AM	21:54	6.49 pH	21.19 °C	362.98 µS/cm	2.75 mg/L	18.30 NTU	51.9 mV	40.32 ft	400.00 ml/min
8/13/2024 10:22 AM	31:54	6.50 pH	21.14 °C	522.96 µS/cm	1.85 mg/L	11.80 NTU	33.9 mV	41.15 ft	400.00 ml/min
8/13/2024 10:23 AM	32:39	6.50 pH	21.12 °C	533.49 µS/cm	1.73 mg/L	11.80 NTU	33.6 mV	41.15 ft	350.00 ml/min
8/13/2024 10:28 AM	37:39	6.52 pH	21.11 °C	583.94 µS/cm	1.42 mg/L	6.92 NTU	31.8 mV	41.95 ft	350.00 ml/min
8/13/2024 10:33 AM	42:39	6.53 pH	21.18 °C	611.35 µS/cm	1.16 mg/L	5.50 NTU	32.1 mV	42.15 ft	350.00 ml/min
8/13/2024 10:38 AM	47:39	6.55 pH	21.14 °C	628.49 µS/cm	1.13 mg/L	4.46 NTU	30.8 mV	42.97 ft	350.00 ml/min
8/13/2024 10:43 AM	52:39	6.56 pH	21.21 °C	638.66 µS/cm	1.25 mg/L	2.82 NTU	30.8 mV	43.49 ft	350.00 ml/min
8/13/2024 10:48 AM	57:39	6.58 pH	21.29 °C	644.23 µS/cm	1.62 mg/L	3.06 NTU	32.0 mV	43.90 ft	350.00 ml/min
8/13/2024 10:53 AM	01:02:39	6.59 pH	21.36 °C	659.99 µS/cm	2.62 mg/L	3.48 NTU	33.1 mV	44.35 ft	300.00 ml/min

8/13/2024 10:58 AM	01:07:39	6.55 pH	22.03 °C	643.15 µS/cm	2.10 mg/L	6.14 NTU	53.4 mV	44.40 ft	300.00 ml/min
8/13/2024 11:03 AM	01:12:39	6.54 pH	22.07 °C	642.91 µS/cm	1.76 mg/L	3.77 NTU	59.0 mV	44.41 ft	300.00 ml/min
8/13/2024 11:08 AM	01:17:39	6.55 pH	22.08 °C	642.79 µS/cm	2.19 mg/L	2.79 NTU	59.5 mV	44.41 ft	300.00 ml/min
8/13/2024 11:13 AM	01:22:39	6.58 pH	22.39 °C	643.78 µS/cm	2.68 mg/L	2.77 NTU	54.0 mV	44.43 ft	300.00 ml/min
8/13/2024 11:18 AM	01:27:39	6.61 pH	22.48 °C	651.35 µS/cm	3.01 mg/L	2.46 NTU	39.9 mV	44.43 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/13/2024 12:35:40 PM
Project: Arkwright AP-2 development
Operator Name: Zach Levy

Location Name: Arkwright, AP-2, ARGWC-21 Latitude: 32.921465831757004 Longitude: -83.70213453662315 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 17.4 ft Total Depth: 27.8 ft Initial Depth to Water: 14.47 m	Pump Type: Reclaimer pump Tubing Type: LDPE Pump Intake From TOC: 27.4 ft Estimated Total Volume Pumped: 43991.668 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: -6.85 ft	Instrument Used: Aqua TROLL 400 Serial Number: 968202
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Test Notes:
Redevelopment by over-pumping. Started with pump at bottom of screen, then moved to top of screen, finally moved to mid point of screen. Pumped appropriately 17.5 gallons, 3.5 x 5 gal buckets

Weather Conditions:
Clear, 89F

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/13/2024 12:35 PM	00:00	6.10 pH	21.60 °C	713.39 µS/cm	2.49 mg/L	75.10 NTU	66.7 mV	25.00 ft	500.00 ml/min
8/13/2024 12:45 PM	10:00	6.13 pH	20.65 °C	732.65 µS/cm	3.55 mg/L	36.40 NTU	76.6 mV	25.00 ft	500.00 ml/min
8/13/2024 12:55 PM	20:00	6.11 pH	20.40 °C	746.57 µS/cm	3.37 mg/L	25.10 NTU	78.1 mV	25.00 ft	500.00 ml/min
8/13/2024 1:05 PM	29:59	6.09 pH	20.61 °C	763.96 µS/cm	3.12 mg/L	20.90 NTU	82.7 mV	25.00 ft	500.00 ml/min
8/13/2024 1:10 PM	34:59	6.08 pH	20.47 °C	775.74 µS/cm	2.84 mg/L	17.20 NTU	74.1 mV	25.00 ft	500.00 ml/min
8/13/2024 1:15 PM	39:59	6.08 pH	20.53 °C	780.04 µS/cm	2.55 mg/L	15.20 NTU	72.8 mV	25.00 ft	500.00 ml/min
8/13/2024 1:20 PM	44:59	6.06 pH	20.92 °C	782.72 µS/cm	2.32 mg/L	11.80 NTU	72.1 mV	25.00 ft	400.00 ml/min
8/13/2024 1:25 PM	49:59	6.05 pH	20.83 °C	783.36 µS/cm	2.19 mg/L	8.60 NTU	76.8 mV	25.00 ft	400.00 ml/min
8/13/2024 1:30 PM	54:59	6.05 pH	20.73 °C	796.70 µS/cm	2.17 mg/L	7.58 NTU	69.8 mV	25.00 ft	400.00 ml/min
8/13/2024 1:35 PM	59:59	6.05 pH	20.85 °C	802.47 µS/cm	2.09 mg/L	6.79 NTU	68.4 mV	25.00 ft	400.00 ml/min
8/13/2024 1:40 PM	01:04:59	6.03 pH	21.20 °C	809.07 µS/cm	1.97 mg/L	4.93 NTU	67.3 mV	25.00 ft	300.00 ml/min
8/13/2024 1:45 PM	01:09:59	6.03 pH	21.21 °C	811.06 µS/cm	1.76 mg/L	4.28 NTU	65.5 mV	25.00 ft	300.00 ml/min

8/13/2024 1:50 PM	01:14:59	6.03 pH	21.58 °C	808.48 µS/cm	1.62 mg/L	3.36 NTU	64.2 mV	25.00 ft	300.00 ml/min
8/13/2024 1:55 PM	01:19:59	6.03 pH	21.32 °C	814.26 µS/cm	1.70 mg/L	4.01 NTU	63.3 mV	25.00 ft	300.00 ml/min
8/13/2024 2:00 PM	01:24:59	6.03 pH	21.45 °C	822.14 µS/cm	1.92 mg/L	10.40 NTU	69.7 mV	25.00 ft	300.00 ml/min
8/13/2024 2:05 PM	01:29:59	6.02 pH	21.45 °C	830.71 µS/cm	1.72 mg/L	11.70 NTU	63.3 mV	25.00 ft	300.00 ml/min
8/13/2024 2:10 PM	01:34:59	6.02 pH	21.44 °C	829.86 µS/cm	1.53 mg/L	7.65 NTU	60.5 mV	25.00 ft	300.00 ml/min
8/13/2024 2:15 PM	01:39:59	6.01 pH	21.72 °C	829.10 µS/cm	1.42 mg/L	4.63 NTU	59.0 mV	25.00 ft	300.00 ml/min
8/13/2024 2:20 PM	01:44:59	6.00 pH	21.63 °C	826.67 µS/cm	1.28 mg/L	2.47 NTU	58.7 mV	25.00 ft	300.00 ml/min
8/13/2024 2:25 PM	01:49:59	6.01 pH	21.65 °C	828.47 µS/cm	1.19 mg/L	2.04 NTU	57.1 mV	25.00 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/14/2024 12:25:04 PM
Project: Arkwright AP-2
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, ARGWC-22 Latitude: 32.9217536921101 Longitude: -83.7028370797634 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 17.71 ft Total Depth: 27.71 ft Initial Depth to Water: 14.32 ft	Pump Type: Reclaimer Pump Tubing Type: LDPE Pump Intake From TOC: 27.7 ft Estimated Total Volume Pumped: 57300 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.19 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965586
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Test Notes:
Redevelopment by over-pumping. Pumped at 265 mL/min at bottom of screen. Brought to top of screen, then slowly lowered. Finished mid-screen and lowered flow rate to 180 mL/min. pH did not stabilize due to suspected fault in probe. Missing of RDO readings also associated with probe communication issue.

Weather Conditions:
Mostly sunny, 82F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/14/2024 12:25 PM	00:00	5.75 pH	19.79 °C	1,437.2 µS/cm	0.11 mg/L	5.34 NTU	64.2 mV	14.85 ft	265.00 ml/min
8/14/2024 12:30 PM	05:00	5.74 pH	19.50 °C	1,427.0 µS/cm	0.09 mg/L	5.63 NTU	63.1 mV	14.85 ft	265.00 ml/min
8/14/2024 12:35 PM	10:00	5.76 pH	19.54 °C	1,423.7 µS/cm	0.09 mg/L	5.14 NTU	57.0 mV	14.85 ft	265.00 ml/min
8/14/2024 12:40 PM	15:00	5.78 pH	19.87 °C	1,431.9 µS/cm	0.10 mg/L	2.92 NTU	51.6 mV	14.85 ft	265.00 ml/min
8/14/2024 12:45 PM	20:00	5.98 pH	19.18 °C	1,418.6 µS/cm		77.60 NTU	36.6 mV	17.70 ft	265.00 ml/min
8/14/2024 12:50 PM	25:00	6.30 pH	19.34 °C	1,411.6 µS/cm		34.90 NTU	1.0 mV	17.70 ft	265.00 ml/min
8/14/2024 12:55 PM	30:00	5.82 pH	19.47 °C	1,403.4 µS/cm		21.40 NTU	39.0 mV	17.70 ft	265.00 ml/min
8/14/2024 1:00 PM	35:00	6.28 pH	19.43 °C	1,406.5 µS/cm		11.40 NTU	-7.5 mV	17.70 ft	265.00 ml/min
8/14/2024 1:05 PM	40:00	6.44 pH	19.50 °C	1,404.3 µS/cm		10.20 NTU	-10.4 mV	17.70 ft	265.00 ml/min
8/14/2024 1:10 PM	45:00	6.52 pH	20.07 °C	1,420.0 µS/cm		7.76 NTU	-13.8 mV	14.95 ft	265.00 ml/min
8/14/2024 1:15 PM	50:00	5.79 pH	19.85 °C	1,409.0 µS/cm		8.01 NTU	41.6 mV	14.95 ft	265.00 ml/min
8/14/2024 1:20 PM	55:00	6.44 pH	19.50 °C	1,413.1 µS/cm		10.70 NTU	-6.2 mV	14.95 ft	265.00 ml/min

8/14/2024 1:25 PM	01:00:00	5.89 pH	19.45 °C	1,426.2 µS/cm		9.09 NTU	39.4 mV	14.95 ft	265.00 ml/min
8/14/2024 1:30 PM	01:05:00	5.80 pH	20.28 °C	1,421.3 µS/cm		14.00 NTU	59.0 mV	14.95 ft	265.00 ml/min
8/14/2024 1:35 PM	01:10:00	6.07 pH	19.12 °C	1,414.7 µS/cm		60.40 NTU	38.3 mV	14.81 ft	265.00 ml/min
8/14/2024 1:40 PM	01:15:00	5.82 pH	19.46 °C	1,415.9 µS/cm		30.30 NTU	68.8 mV	14.76 ft	255.00 ml/min
8/14/2024 1:45 PM	01:20:00	5.87 pH	20.18 °C	1,427.5 µS/cm		20.20 NTU	57.1 mV	14.71 ft	255.00 ml/min
8/14/2024 1:50 PM	01:25:00	5.89 pH	20.53 °C	1,425.7 µS/cm		14.00 NTU	51.0 mV	14.71 ft	255.00 ml/min
8/14/2024 1:55 PM	01:30:00	5.80 pH	20.31 °C	1,425.2 µS/cm		10.00 NTU	54.4 mV	14.71 ft	255.00 ml/min
8/14/2024 2:00 PM	01:35:00	6.00 pH	20.30 °C	1,424.1 µS/cm		9.83 NTU	34.2 mV	14.71 ft	255.00 ml/min
8/14/2024 2:05 PM	01:40:00	6.03 pH	20.57 °C	1,422.5 µS/cm		7.62 NTU	28.5 mV	14.71 ft	255.00 ml/min
8/14/2024 2:10 PM	01:45:00	6.08 pH	20.70 °C	1,424.2 µS/cm		8.75 NTU	20.8 mV	14.71 ft	255.00 ml/min
8/14/2024 2:15 PM	01:50:00	5.76 pH	20.66 °C	1,410.6 µS/cm		9.86 NTU	56.9 mV	14.71 ft	255.00 ml/min
8/14/2024 2:20 PM	01:55:00	6.10 pH	20.56 °C	1,416.7 µS/cm		10.40 NTU	17.8 mV	14.71 ft	255.00 ml/min
8/14/2024 2:25 PM	02:00:00	6.11 pH	20.79 °C	1,425.2 µS/cm		10.40 NTU	13.6 mV	14.71 ft	255.00 ml/min
8/14/2024 2:30 PM	02:05:00	6.09 pH	20.88 °C	1,418.3 µS/cm		9.86 NTU	14.7 mV	14.71 ft	255.00 ml/min
8/14/2024 2:35 PM	02:10:00	5.74 pH	21.11 °C	1,418.8 µS/cm		9.75 NTU	55.5 mV	14.71 ft	255.00 ml/min
8/14/2024 2:40 PM	02:15:00	6.15 pH	21.49 °C	1,421.7 µS/cm		8.63 NTU	9.3 mV	14.71 ft	255.00 ml/min
8/14/2024 2:45 PM	02:20:00	5.74 pH	21.42 °C	1,420.1 µS/cm		7.82 NTU	47.8 mV	14.71 ft	255.00 ml/min
8/14/2024 2:50 PM	02:25:00	6.15 pH	21.79 °C	1,421.2 µS/cm		7.68 NTU	6.4 mV	14.71 ft	255.00 ml/min
8/14/2024 2:55 PM	02:30:00	6.19 pH	21.59 °C	1,413.9 µS/cm		7.85 NTU	2.1 mV	14.71 ft	255.00 ml/min
8/14/2024 3:00 PM	02:35:00	6.19 pH	21.14 °C	1,418.7 µS/cm		8.05 NTU	1.0 mV	14.71 ft	255.00 ml/min
8/14/2024 3:05 PM	02:40:00	6.22 pH	21.32 °C	1,418.1 µS/cm		7.35 NTU	-1.3 mV	14.71 ft	255.00 ml/min
8/14/2024 3:10 PM	02:45:00	6.21 pH	21.37 °C	1,413.3 µS/cm		7.39 NTU	-1.1 mV	14.71 ft	255.00 ml/min
8/14/2024 3:15 PM	02:50:00	6.23 pH	21.40 °C	1,413.6 µS/cm		7.35 NTU	-3.7 mV	14.71 ft	255.00 ml/min
8/14/2024 3:20 PM	02:55:00	6.41 pH	21.54 °C	1,418.4 µS/cm		6.84 NTU	-8.5 mV	14.71 ft	255.00 ml/min
8/14/2024 3:25 PM	03:00:00	6.44 pH	21.60 °C	1,418.7 µS/cm		6.67 NTU	-9.4 mV	14.71 ft	255.00 ml/min
8/14/2024 3:30 PM	03:05:00	6.54 pH	21.43 °C	1,418.3 µS/cm		5.93 NTU	-11.2 mV	14.71 ft	255.00 ml/min
8/14/2024 3:35 PM	03:10:00	6.53 pH	21.31 °C	1,418.4 µS/cm		5.24 NTU	-11.2 mV	14.71 ft	180.00 ml/min
8/14/2024 3:40 PM	03:15:00	6.58 pH	21.48 °C	1,417.2 µS/cm		5.05 NTU	-12.0 mV	14.51 ft	180.00 ml/min
8/14/2024 3:45 PM	03:20:00	6.58 pH	21.28 °C	1,421.3 µS/cm		4.98 NTU	-14.5 mV	14.51 ft	180.00 ml/min

8/14/2024 3:50 PM	03:25:00	6.62 pH	21.41 °C	1,421.1 µS/cm		4.47 NTU	-14.8 mV	14.51 ft	180.00 ml/min
8/14/2024 3:55 PM	03:30:00	6.51 pH	21.37 °C	1,413.8 µS/cm		4.51 NTU	-17.4 mV	14.51 ft	180.00 ml/min
8/14/2024 4:00 PM	03:35:00	6.62 pH	21.19 °C	1,417.0 µS/cm		4.17 NTU	-20.5 mV	14.51 ft	180.00 ml/min
8/14/2024 4:05 PM	03:40:00	6.64 pH	21.28 °C	1,416.7 µS/cm		4.11 NTU	-21.5 mV	14.51 ft	180.00 ml/min
8/14/2024 4:10 PM	03:45:00	6.53 pH	21.57 °C	1,417.8 µS/cm		4.14 NTU	-23.4 mV	14.51 ft	180.00 ml/min
8/14/2024 4:15 PM	03:50:00	5.75 pH	21.38 °C	1,407.6 µS/cm		3.91 NTU	36.6 mV	14.51 ft	180.00 ml/min
8/14/2024 4:20 PM	03:55:00	6.67 pH	21.24 °C	1,412.7 µS/cm		4.12 NTU	-20.8 mV	14.51 ft	180.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/13/2024 9:55:04 AM
Project: Arkwright AP-2
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, ARGWC-23 Latitude: 32.921245532411625 Longitude: -83.7017968104718 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 18.4 ft Total Depth: 28.4 ft Initial Depth to Water: 12.7 ft	Pump Type: Reclaimer Pump Tubing Type: LDPE Pump Intake From TOC: 28.3 ft Estimated Total Volume Pumped: 25 gal Flow Cell Volume: 90 ml Final Flow Rate: 650 ml/min Final Draw Down: 9.3 ft	Instrument Used: Aqua TROLL 400 Serial Number: 965586
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Test Notes:
Redevelopment by over-pumping. Lowered pump to bottom and began purging at 1000 mL per minute. Lowered flow rate to 500 mL/min at 1005. Surged bottom of screen at 1020. Brought to the top of the screen and then slowly lowered. Finished in the middle of the screen.

Weather Conditions:
Sunny, 80F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/13/2024 9:55 AM	00:00	6.40 pH	20.52 °C	525.57 µS/cm	0.96 mg/L	56.10 NTU	162.4 mV	12.70 ft	1,000.00 ml/min
8/13/2024 10:05 AM	10:00	6.45 pH	20.77 °C	524.30 µS/cm	3.22 mg/L	72.10 NTU	139.6 mV	22.00 ft	500.00 ml/min
8/13/2024 10:15 AM	20:00	6.44 pH	21.28 °C	524.78 µS/cm	2.65 mg/L	31.80 NTU	137.4 mV	22.00 ft	500.00 ml/min
8/13/2024 10:22 AM	27:53	6.41 pH	21.01 °C	528.63 µS/cm	2.29 mg/L	75.90 NTU	165.6 mV	22.00 ft	500.00 ml/min
8/13/2024 10:25 AM	29:57	6.41 pH	21.01 °C	528.75 µS/cm	2.58 mg/L	1,000.00 NTU	156.1 mV	22.00 ft	500.00 ml/min
8/13/2024 10:25 AM	30:26	6.41 pH	21.01 °C	529.01 µS/cm	2.62 mg/L	1,000.00 NTU	154.0 mV	22.00 ft	500.00 ml/min
8/13/2024 10:25 AM	30:40	6.41 pH	21.01 °C	529.29 µS/cm	2.63 mg/L	1,000.00 NTU	152.5 mV	22.00 ft	500.00 ml/min
8/13/2024 10:35 AM	40:40	6.41 pH	20.90 °C	528.50 µS/cm	1.81 mg/L	85.80 NTU	113.6 mV	22.00 ft	500.00 ml/min
8/13/2024 10:45 AM	50:40	6.39 pH	20.88 °C	530.69 µS/cm	1.80 mg/L	32.20 NTU	121.0 mV	22.00 ft	500.00 ml/min
8/13/2024 10:55 AM	01:00:40	6.39 pH	21.03 °C	528.86 µS/cm	1.59 mg/L	29.90 NTU	120.5 mV	22.00 ft	500.00 ml/min
8/13/2024 11:05 AM	01:10:40	6.42 pH	21.71 °C	527.22 µS/cm	3.75 mg/L	53.40 NTU	132.1 mV	22.00 ft	500.00 ml/min

8/13/2024 11:15 AM	01:20:40	7.76 pH	23.65 °C	534.03 µS/cm	8.89 mg/L	175.00 NTU	141.7 mV	22.00 ft	300.00 ml/min
8/13/2024 11:25 AM	01:30:40	6.33 pH	23.70 °C	531.68 µS/cm	3.93 mg/L	65.30 NTU	204.0 mV	22.00 ft	300.00 ml/min
8/13/2024 11:35 AM	01:40:40	6.33 pH	23.55 °C	533.15 µS/cm	2.87 mg/L	78.60 NTU	143.0 mV	22.00 ft	300.00 ml/min
8/13/2024 11:45 AM	01:50:40	6.34 pH	23.69 °C	532.06 µS/cm	2.38 mg/L	55.30 NTU	139.7 mV	22.00 ft	300.00 ml/min
8/13/2024 11:55 AM	02:00:40	6.35 pH	23.66 °C	531.55 µS/cm	2.05 mg/L	31.40 NTU	140.3 mV	22.00 ft	300.00 ml/min
8/13/2024 12:05 PM	02:10:40	6.33 pH	23.97 °C	530.22 µS/cm	1.74 mg/L	20.60 NTU	140.4 mV	22.00 ft	300.00 ml/min
8/13/2024 12:15 PM	02:20:40	6.34 pH	23.87 °C	529.45 µS/cm	1.54 mg/L	14.20 NTU	196.7 mV	22.00 ft	300.00 ml/min
8/13/2024 12:25 PM	02:30:40	6.35 pH	24.37 °C	529.94 µS/cm	1.35 mg/L	12.30 NTU	149.2 mV	22.00 ft	300.00 ml/min
8/13/2024 12:35 PM	02:40:40	6.35 pH	24.42 °C	530.62 µS/cm	1.18 mg/L	6.91 NTU	149.0 mV	22.00 ft	300.00 ml/min
8/13/2024 12:40 PM	02:45:10	6.35 pH	24.41 °C	529.39 µS/cm	1.14 mg/L	5.16 NTU	195.2 mV	22.00 ft	300.00 ml/min
8/13/2024 12:45 PM	02:50:10	6.35 pH	24.46 °C	529.32 µS/cm	1.09 mg/L	4.46 NTU	147.7 mV	22.00 ft	300.00 ml/min
8/13/2024 12:50 PM	02:55:10	6.34 pH	24.50 °C	530.24 µS/cm	1.03 mg/L	4.11 NTU	145.5 mV	22.00 ft	300.00 ml/min
8/13/2024 12:55 PM	03:00:10	6.33 pH	24.50 °C	529.51 µS/cm	0.98 mg/L	4.47 NTU	149.4 mV	22.00 ft	300.00 ml/min
8/13/2024 1:00 PM	03:05:10	6.34 pH	24.77 °C	533.68 µS/cm	0.93 mg/L	46.70 NTU	142.5 mV	22.00 ft	300.00 ml/min
8/13/2024 1:05 PM	03:10:10	6.36 pH	26.15 °C	531.04 µS/cm	0.97 mg/L	17.40 NTU	140.9 mV	22.00 ft	300.00 ml/min
8/13/2024 1:10 PM	03:15:10	6.38 pH	25.98 °C	527.16 µS/cm	0.81 mg/L	15.20 NTU	161.4 mV	22.00 ft	300.00 ml/min
8/13/2024 1:15 PM	03:20:10	6.38 pH	25.79 °C	527.07 µS/cm	0.75 mg/L	26.30 NTU	113.4 mV	22.00 ft	300.00 ml/min
8/13/2024 1:20 PM	03:25:10	6.38 pH	26.15 °C	526.39 µS/cm	0.73 mg/L	34.70 NTU	38.7 mV	22.00 ft	300.00 ml/min
8/13/2024 1:25 PM	03:30:10	6.37 pH	26.02 °C	526.64 µS/cm	0.71 mg/L	36.60 NTU	-2.6 mV	22.00 ft	300.00 ml/min
8/13/2024 1:30 PM	03:35:10	6.38 pH	22.30 °C	521.53 µS/cm	1.20 mg/L	21.00 NTU	-42.9 mV	22.00 ft	650.00 ml/min
8/13/2024 1:35 PM	03:40:10	6.38 pH	21.86 °C	527.54 µS/cm	0.97 mg/L	13.20 NTU	10.5 mV	22.00 ft	650.00 ml/min
8/13/2024 1:40 PM	03:45:10	6.37 pH	21.63 °C	528.41 µS/cm	0.91 mg/L	8.28 NTU	10.0 mV	22.00 ft	650.00 ml/min
8/13/2024 1:45 PM	03:50:10	6.35 pH	22.04 °C	528.55 µS/cm	0.83 mg/L	6.68 NTU	10.8 mV	22.00 ft	650.00 ml/min
8/13/2024 1:50 PM	03:55:10	6.36 pH	21.99 °C	528.17 µS/cm	0.75 mg/L	4.68 NTU	-6.1 mV	22.00 ft	650.00 ml/min
8/13/2024 1:57 PM	04:02:43	6.38 pH	22.03 °C	527.88 µS/cm	0.75 mg/L	3.79 NTU	-14.2 mV	22.00 ft	650.00 ml/min
8/13/2024 2:02 PM	04:07:43	6.37 pH	22.17 °C	528.96 µS/cm	0.75 mg/L	2.98 NTU	0.1 mV	22.00 ft	650.00 ml/min

Samples

Sample ID:	Description:
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B.2 Field Sampling Data



Low-Flow Test Report:

Test Date / Time: 8/20/2024 12:43:03 PM
Project: Arkwright
Operator Name: Z Levy

Location Name: ARAMW-1 Latitude: 32.92146483904961 Longitude: -83.70217323311017 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 37.44 ft Total Depth: 47.44 ft Initial Depth to Water: 13.7 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 42 ft Estimated Total Volume Pumped: 9000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.35 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989619
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Test Notes:
HS: 0.0 mg/l

Weather Conditions:
Clear 30 degrees Celsius

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/20/2024 12:43 PM	00:00	6.28 pH	27.97 °C	631.33 µS/cm	0.56 mg/L	3.84 NTU	60.7 mV	14.02 ft	300.00 ml/min
8/20/2024 12:48 PM	05:00	6.25 pH	21.52 °C	697.50 µS/cm	0.12 mg/L	4.84 NTU	44.7 mV	14.04 ft	300.00 ml/min
8/20/2024 12:53 PM	10:00	6.30 pH	20.87 °C	697.76 µS/cm	0.10 mg/L	4.87 NTU	38.3 mV	14.05 ft	300.00 ml/min
8/20/2024 12:58 PM	15:00	6.28 pH	20.67 °C	700.31 µS/cm	0.08 mg/L	3.63 NTU	36.5 mV	14.05 ft	300.00 ml/min
8/20/2024 1:03 PM	20:00	6.15 pH	20.82 °C	698.54 µS/cm	0.08 mg/L	3.40 NTU	36.4 mV	14.05 ft	300.00 ml/min
8/20/2024 1:08 PM	25:00	6.15 pH	20.83 °C	696.21 µS/cm	0.08 mg/L	2.75 NTU	36.9 mV	14.05 ft	300.00 ml/min
8/20/2024 1:13 PM	30:00	6.13 pH	20.83 °C	704.19 µS/cm	0.07 mg/L	2.27 NTU	37.6 mV	14.05 ft	300.00 ml/min

Samples

Sample ID:	Description:
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ARK-ARAMW-1	@ 1315 9 bottles Radium TDS Metals Dissolved metals Nitrate/nitrite Alkalinity Anions
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Low-Flow Test Report:

Test Date / Time: 8/20/2024 11:11:50 AM
Project: Arkwright
Operator Name: Z Levy

Location Name: ARAMW-2 Latitude: 32.92137481740955 Longitude: -83.70216233663605 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 15.2 ft Total Depth: 25.2 ft Initial Depth to Water: 13.82 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 20 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.03 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989619
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Test Notes:
Sulfide: 0.0 mg/l

Weather Conditions:
Clear 27 degrees Celsius

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/20/2024 11:11 AM	00:00	6.09 pH	21.72 °C	700.19 µS/cm	0.12 mg/L	11.20 NTU	46.2 mV	13.84 ft	200.00 ml/min
8/20/2024 11:16 AM	05:00	6.08 pH	21.63 °C	698.41 µS/cm	0.11 mg/L	10.40 NTU	44.0 mV	13.85 ft	200.00 ml/min
8/20/2024 11:21 AM	10:00	6.09 pH	21.58 °C	695.94 µS/cm	0.12 mg/L	8.29 NTU	44.4 mV	13.85 ft	200.00 ml/min
8/20/2024 11:26 AM	15:00	6.08 pH	21.58 °C	689.11 µS/cm	0.12 mg/L	7.50 NTU	44.6 mV	13.85 ft	200.00 ml/min
8/20/2024 11:31 AM	20:00	6.09 pH	21.58 °C	698.81 µS/cm	0.13 mg/L	4.70 NTU	43.8 mV	13.85 ft	200.00 ml/min
8/20/2024 11:36 AM	25:00	6.08 pH	21.61 °C	693.87 µS/cm	0.13 mg/L	2.85 NTU	44.2 mV	13.85 ft	200.00 ml/min
8/20/2024 11:41 AM	30:00	6.08 pH	21.67 °C	701.90 µS/cm	0.12 mg/L	2.55 NTU	44.4 mV	13.85 ft	200.00 ml/min

Samples

Sample ID:	Description:
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ARK-ARAMW-2	@ 1145 9 bottles Alkalinity Anions TDS Nitrate/nitrite Radium Metals Dissolved metals
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Low-Flow Test Report:

Test Date / Time: 8/20/2024 12:30:04 PM
Project: Arkwright
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, ARAMW-7 Latitude: 32.93105095141628 Longitude: -83.70962745418582 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 40.4 ft Total Depth: 50.7 ft Initial Depth to Water: 13.29 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 45.4 ft Estimated Total Volume Pumped: 4500 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.2 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080302
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Test Notes:
Pump speed: 1
Hydrogen sulfide: 0.0 mg/L

Weather Conditions:
Sunny, 85F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/20/2024 12:30 PM	00:00	5.65 pH	20.61 °C	1,799.4 µS/cm	0.82 mg/L	7.17 NTU	91.4 mV	13.29 ft	150.00 ml/min
8/20/2024 12:35 PM	05:00	5.64 pH	20.66 °C	1,801.1 µS/cm	0.74 mg/L	4.89 NTU	97.4 mV	13.29 ft	150.00 ml/min
8/20/2024 12:40 PM	10:00	5.64 pH	20.48 °C	1,781.8 µS/cm	0.66 mg/L	3.77 NTU	88.1 mV	13.29 ft	150.00 ml/min
8/20/2024 12:45 PM	15:00	5.64 pH	20.39 °C	1,781.5 µS/cm	0.59 mg/L	3.79 NTU	87.2 mV	13.29 ft	150.00 ml/min
8/20/2024 12:50 PM	20:00	5.63 pH	20.42 °C	1,793.7 µS/cm	0.30 mg/L	2.84 NTU	86.0 mV	13.29 ft	150.00 ml/min
8/20/2024 12:55 PM	25:00	5.63 pH	20.21 °C	1,784.3 µS/cm	0.29 mg/L	2.13 NTU	85.8 mV	13.29 ft	150.00 ml/min
8/20/2024 1:00 PM	30:00	5.62 pH	20.38 °C	1,782.2 µS/cm	0.28 mg/L	2.95 NTU	86.2 mV	13.29 ft	150.00 ml/min

Samples

Sample ID:	Description:
ARK-ARAMW-7	9 bottles at 1305: Metals, field filtered dissolved metals, anions, TDS, nitrate/nitrite, alkalinity, radium.

ARK-AP2-FB-03	7 bottles at 1200: Metals, Anions, TDS, Nitrate/Nitrite, Radium
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Low-Flow Test Report:

Test Date / Time: 8/20/2024 9:04:18 AM
Project: Arkwright
Operator Name: J. Bankston

Location Name: Arkwright ARAMW-8 Latitude: 32.921361374918874 Longitude: -83.7019107713522 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 39.54 ft Total Depth: 49.54 ft Initial Depth to Water: 12.33 ft	Pump Type: Peristaltic pump Tubing Type: LDPE Pump Intake From TOC: 44.5 ft Estimated Total Volume Pumped: 2500 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 3.4 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080306
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Test Notes:
Heron dipper-T SN 11DF2206168HB
H2S: 0.0 mg/L

Weather Conditions:
Sunny 80F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/20/2024 9:04 AM	00:00	6.47 pH	22.53 °C	672.33 µS/cm	4.66 mg/L	7.05 NTU	238.8 mV	12.97 ft	100.00 ml/min
8/20/2024 9:09 AM	05:00	6.49 pH	22.53 °C	678.49 µS/cm	4.18 mg/L	2.95 NTU	251.3 mV	13.52 ft	100.00 ml/min
8/20/2024 9:14 AM	10:00	6.48 pH	22.75 °C	665.06 µS/cm	3.51 mg/L	14.16 NTU	306.6 mV	13.52 ft	100.00 ml/min
8/20/2024 9:19 AM	15:00	6.48 pH	23.00 °C	663.83 µS/cm	3.13 mg/L	4.11 NTU	301.5 mV	14.68 ft	100.00 ml/min
8/20/2024 9:24 AM	20:00	6.47 pH	23.29 °C	662.11 µS/cm	2.93 mg/L	3.67 NTU	223.7 mV	15.04 ft	100.00 ml/min
8/20/2024 9:29 AM	25:00	6.47 pH	23.46 °C	654.96 µS/cm	2.84 mg/L	2.79 NTU	254.3 mV	15.73 ft	100.00 ml/min

Samples

Sample ID:	Description:
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ARK-ARAMW-8	Sample Time:0935 ; 9 bottles: Metals, Radiologicals,Anions, TDS, Alkalinity,Nitrate/Nitrite Fe2+/Mn2+
ARK-AP2-FD-03	7 bottles: Metals, Radiologicals,Anions, TDS, Alkalinity,Nitrate/Nitrite Fe2+/Mn2+

Low-Flow Test Report:

Test Date / Time: 8/20/2024 11:24:33 AM
Project: Arkwright
Operator Name: J.Myer

Location Name: AP2-ARAMW-9 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 94.5 ft Total Depth: 105.55 ft Initial Depth to Water: 7.9 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 100.4 ft Estimated Total Volume Pumped: 2000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 3.6 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082817
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Test Notes:

Turbidimeter S/N: 22990D000345
WL S/N: T11DF2106090ML

Weather Conditions:
Sunny 82 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 %	+/- 10 %	+/- 10	+/- 0.5	
8/20/2024 11:24 AM	00:00	6.79 pH	24.96 °C	997.66 µS/cm	3.17 mg/L	3.46 NTU	-126.2 mV	8.80 ft	100.00 ml/min
8/20/2024 11:29 AM	05:00	7.72 pH	21.77 °C	1,052.3 µS/cm	0.48 mg/L	2.39 NTU	-142.9 mV	9.60 ft	100.00 ml/min
8/20/2024 11:34 AM	10:00	7.89 pH	21.44 °C	1,061.9 µS/cm	0.35 mg/L	1.47 NTU	-199.6 mV	10.20 ft	100.00 ml/min
8/20/2024 11:39 AM	15:00	7.94 pH	21.31 °C	1,059.6 µS/cm	0.27 mg/L	3.48 NTU	-153.7 mV	10.90 ft	100.00 ml/min
8/20/2024 11:44 AM	20:00	7.95 pH	21.20 °C	1,058.8 µS/cm	0.24 mg/L	3.35 NTU	-154.4 mV	11.50 ft	100.00 ml/min

Samples

Sample ID:	Description:
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ARK-ARAMW-9	9 bottles filled at 1150 1 Metals 1 Dissolved Metals 1 TDS 1 Nitrate/Nitrite 1 Anions 1 Alkalinity 3 Ra-226/Ra-228
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Low-Flow Test Report:

Test Date / Time: 8/20/2024 8:45:05 AM
Project: Arkwright
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, ARGWA-19 Latitude: 32.9237420103943 Longitude: -83.7009420990944 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 43.1 ft Total Depth: 53.4 ft Initial Depth to Water: 29.31 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 47.7 ft Estimated Total Volume Pumped: 9000 ml Flow Cell Volume: 90 ml Final Flow Rate: 450 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080302
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Test Notes:
MP-50 S/N: 12 ID: 103
Pressure: 35 psi Hydrogen
sulfide: 0.0 mg/L

Weather Conditions:
Clear, 73F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/20/2024 8:45 AM	00:00	5.94 pH	19.94 °C	120.25 µS/cm	4.03 mg/L	1.14 NTU	104.3 mV	29.31 ft	450.00 ml/min
8/20/2024 8:50 AM	05:00	5.92 pH	20.05 °C	120.49 µS/cm	4.08 mg/L	0.69 NTU	93.8 mV	29.31 ft	450.00 ml/min
8/20/2024 8:55 AM	10:00	5.92 pH	20.14 °C	120.12 µS/cm	4.11 mg/L	0.90 NTU	89.0 mV	29.31 ft	450.00 ml/min
8/20/2024 9:00 AM	15:00	5.93 pH	20.25 °C	119.86 µS/cm	4.13 mg/L	0.60 NTU	91.5 mV	29.31 ft	450.00 ml/min
8/20/2024 9:05 AM	20:00	5.93 pH	20.32 °C	121.05 µS/cm	4.15 mg/L	0.48 NTU	119.7 mV	29.31 ft	450.00 ml/min

Samples

Sample ID:	Description:
ARK-ARGWA-19	9 bottles at 0910: Metals, dissolved metals, anions, TDS, Nitrate/Nitrite, Alkalinity, Radium

Low-Flow Test Report:

Test Date / Time: 8/20/2024 8:54:59 AM
Project: Arkwright
Operator Name: Z Levy

Location Name: ARGWA-20 Latitude: 32.912241627008285 Longitude: -83.69827996805736 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 28.1 ft Total Depth: 38.4 ft Initial Depth to Water: 16.86 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 32.6 ft Estimated Total Volume Pumped: 7000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.14 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989619
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Test Notes:
MP50: 21
CPM:4
ID: 103
PSI: 20
HS: 0.0 mg/l

Weather Conditions:
Clear 22 degrees Celsius

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/20/2024 8:54 AM	00:00	5.87 pH	19.01 °C	144.32 µS/cm	5.46 mg/L	12.60 NTU	168.5 mV	17.00 ft	200.00 ml/min
8/20/2024 8:59 AM	05:00	5.85 pH	18.75 °C	145.89 µS/cm	5.34 mg/L	11.40 NTU	147.4 mV	17.00 ft	200.00 ml/min
8/20/2024 9:04 AM	10:00	5.85 pH	18.73 °C	146.26 µS/cm	5.22 mg/L	9.01 NTU	108.2 mV	17.00 ft	200.00 ml/min
8/20/2024 9:09 AM	15:00	5.84 pH	18.73 °C	145.40 µS/cm	5.17 mg/L	6.77 NTU	136.7 mV	17.00 ft	200.00 ml/min
8/20/2024 9:14 AM	20:00	5.84 pH	18.73 °C	144.18 µS/cm	5.15 mg/L	5.86 NTU	137.3 mV	17.00 ft	200.00 ml/min
8/20/2024 9:19 AM	25:00	5.83 pH	18.73 °C	144.00 µS/cm	5.10 mg/L	4.61 NTU	137.2 mV	17.00 ft	200.00 ml/min
8/20/2024 9:24 AM	30:00	5.83 pH	18.75 °C	143.95 µS/cm	5.08 mg/L	4.13 NTU	136.9 mV	17.00 ft	200.00 ml/min
8/20/2024 9:29 AM	35:00	5.83 pH	18.78 °C	144.34 µS/cm	5.09 mg/L	4.25 NTU	137.0 mV	17.00 ft	200.00 ml/min

Samples

Sample ID:	Description:
ARK-ARGWA-20	@ 0935 9 bottles Alkalinity Anions TDS Nitrate/nitrite Radium Metals Dissolved metals

Low-Flow Test Report:

Test Date / Time: 8/20/2024 2:50:17 PM
Project: Arkwright
Operator Name: Z Levy

Location Name: ARGWC-21 Latitude: 32.921529295885 Longitude: -83.70217080235825 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 17.45 ft Total Depth: 27.75 ft Initial Depth to Water: 14.48 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 22.5 ft Estimated Total Volume Pumped: 4000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.95 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989619
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Test Notes:
HS: 0.0 mg/l

Weather Conditions:
Clear 32 degrees Celsius

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 %	+/- 10 %	+/- 10	+/- 0.33	
8/20/2024 2:50 PM	00:00	6.16 pH	27.87 °C	644.63 µS/cm	0.47 mg/L	2.39 NTU	86.9 mV	15.40 ft	200.00 ml/min
8/20/2024 2:55 PM	05:00	6.17 pH	22.11 °C	710.02 µS/cm	0.10 mg/L	2.30 NTU	85.7 mV	15.43 ft	200.00 ml/min
8/20/2024 3:00 PM	10:00	6.18 pH	21.30 °C	714.11 µS/cm	0.09 mg/L	2.06 NTU	68.6 mV	15.43 ft	200.00 ml/min
8/20/2024 3:05 PM	15:00	6.18 pH	21.27 °C	716.43 µS/cm	0.09 mg/L	2.24 NTU	65.8 mV	15.43 ft	200.00 ml/min
8/20/2024 3:10 PM	20:00	6.20 pH	21.00 °C	705.79 µS/cm	0.08 mg/L	2.01 NTU	65.0 mV	15.43 ft	200.00 ml/min

Samples

Sample ID:	Description:
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ARK-ARGWC-21	@ 1515 9 bottles Radium TDS Anions Metals dissolved metals Nitrate/nitrite Alkalinity
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Low-Flow Test Report:

Test Date / Time: 8/20/2024 1:35:01 PM
Project: Arkwright
Operator Name: J.Myer

Location Name: ARGWC-22 Latitude: 32.919994493196626 Longitude: -83.70404855901411 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 17.71 ft Total Depth: 27.71 ft Initial Depth to Water: 14.33 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 22.7 ft Estimated Total Volume Pumped: 3750 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 0.12 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082817
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Test Notes:
MP-50 S/N: 22
ID: 103
PSI: 30
Turbidimeter S/N: 22990D000345
WL S/N: T11DF2106090ML
HS: 0.0 mg/L

Weather Conditions:
Sunny 88 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 %	+/- 10 %	+/- 10	+/- 0.5	
8/20/2024 1:35 PM	00:00	5.76 pH	28.55 °C	1,245.5 µS/cm	0.95 mg/L	7.70 NTU	47.6 mV	14.45 ft	150.00 ml/min
8/20/2024 1:40 PM	05:00	5.75 pH	21.21 °C	1,387.3 µS/cm	0.13 mg/L	5.85 NTU	49.3 mV	14.45 ft	150.00 ml/min
8/20/2024 1:45 PM	10:00	5.75 pH	20.66 °C	1,397.8 µS/cm	0.10 mg/L	4.14 NTU	38.7 mV	14.45 ft	150.00 ml/min
8/20/2024 1:50 PM	15:00	5.75 pH	20.41 °C	1,394.1 µS/cm	0.09 mg/L	3.60 NTU	34.9 mV	14.45 ft	150.00 ml/min
8/20/2024 1:55 PM	20:00	5.75 pH	20.37 °C	1,390.3 µS/cm	0.08 mg/L	2.68 NTU	32.7 mV	14.45 ft	150.00 ml/min
8/20/2024 2:00 PM	25:00	5.76 pH	20.17 °C	1,381.3 µS/cm	0.08 mg/L	2.72 NTU	30.3 mV	14.45 ft	150.00 ml/min

Samples

Sample ID:	Description:
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ARK-ARGWC-22	9 bottles filled at 1405 1 Metals 1 Dissolved Metals 1 Alkalinity 1 Anions 1 TDS 1 Nitrate/Nitrite 3 Ra-226/Ra-228
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Low-Flow Test Report:

Test Date / Time: 8/20/2024 12:20:30 PM
Project: Arkwright
Operator Name: J. Bankston

Location Name: ARGWC-23 Latitude: 32.92138843057751 Longitude: -83.70193057462276 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 18.4 ft Total Depth: 28.4 ft Initial Depth to Water: 12.75 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 23.0 ft Estimated Total Volume Pumped: 2000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.91 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080306
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Test Notes:
Peristaltic S/N: 108038
ID: 43
65 PSI
Heron dipper-T SN 11DF2206168HB
H2S: 0.0 mg/L

Weather Conditions:
Sunny 85

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/20/2024 12:20 PM	00:00	6.36 pH	28.74 °C	515.85 µS/cm	0.52 mg/L	3.84 NTU	106.5 mV	13.37 ft	100.00 ml/min
8/20/2024 12:25 PM	05:00	6.34 pH	27.78 °C	513.71 µS/cm	0.39 mg/L	1.83 NTU	98.7 mV	13.59 ft	100.00 ml/min
8/20/2024 12:30 PM	10:00	6.33 pH	27.35 °C	513.96 µS/cm	0.28 mg/L	1.52 NTU	73.6 mV	13.62 ft	100.00 ml/min
8/20/2024 12:35 PM	15:00	6.33 pH	26.93 °C	514.81 µS/cm	0.34 mg/L	1.36 NTU	67.3 mV	13.65 ft	100.00 ml/min
8/20/2024 12:40 PM	20:00	6.34 pH	27.22 °C	513.79 µS/cm	0.31 mg/L	1.23 NTU	64.4 mV	13.66 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-ARGWC-23	Sample Time: 1250; 9 bottles: Metals, Anions, TDS, Radium, Nitrate/Nitrate, Alkalinity,Fe2+/Mn2+

Low-Flow Test Report:

Test Date / Time: 8/21/2024 9:21:22 AM
Project: Arkwright
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, STN-TW22 Latitude: 32.921682770378 Longitude: -83.7020793557167 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 30.38 ft Total Depth: 35.38 ft Initial Depth to Water: 34.22 ft	Pump Type: Peristaltic Pump Tubing Type: HDPE Pump Intake From TOC: 35.25 ft Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 1.18 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080302
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Test Notes:
Final parameters for second day purge. collected purge water in calibration cup for low flow reading. Well purged dry and final purge water sample collected.

Weather Conditions:
Mostly sunny, 74F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/21/2024 9:21 AM	00:00	6.82 pH	24.68 °C	1,626.3 µS/cm	7.60 mg/L	173.00 NTU	-114.3 mV	34.22 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-STN-TW22	6 bottles collected at 0845: Metals, field filtered dissolved metals, anions, TDS, alkalinity, nitrate/nitrite.

Low-Flow Test Report:

Test Date / Time: 8/21/2024 8:42:04 AM
Project: Arkwright
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-2, STN-TW22 Latitude: 32.921682770378 Longitude: -83.7020793557167 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 29.9 ft Total Depth: 35.4 ft Initial Depth to Water: 34.22 ft	Pump Type: Peristaltic Pump Tubing Type: LDPE Pump Intake From TOC: 35.25 ft Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080302
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Test Notes:
Initial parameters for second day purge. collected purge water in calibration cup for low flow reading. Well purged dry and final purge water sample collected.

Weather Conditions:
Mostly sunny, 72F

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 %	+/- 10 %	+/- 10	+/- 0.3	
8/21/2024 8:42 AM	00:00	6.41 pH	23.32 °C	1,682.8 µS/cm	4.10 mg/L	142.00 NTU	-74.8 mV	34.22 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-STN-TW22	6 bottles collected at 0845: Metals, field filtered dissolved metals, anions, TDS, alkalinity, nitrate/nitrite.

Low-Flow Test Report:

Test Date / Time: 12/12/2024 12:36:52 PM
Project: Arkwright
Operator Name: B. Pennell

Location Name: Arkwright, AP-2, ARAMW-10 Latitude: 32.92168737817932 Longitude: -83.7027525120802 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 48 ft Total Depth: 58 ft Initial Depth to Water: 7.4 ft	Pump Type: Peristaltic Tubing Type: LDPE Tubing Inner Diameter: 0.17 in Tubing Length: 58 ft Pump Intake From TOC: 53 ft Estimated Total Volume Pumped: 6875 ml Flow Cell Volume: 90 ml Final Flow Rate: 275 ml/min Final Draw Down: 0.41 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082822
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Test Notes:
Sample time: 13:10.
Sulfurous odor noted during initial purge. Pre-purged well for approximately 7 mins at 275 ml/min (1.925 L).

Weather Conditions:
Sunny, 9 C

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 %	+/- 10 %	+/- 10	+/- 0.33	
12/12/2024 12:36 PM	00:00	5.84 pH	18.03 °C	1,985.9 µS/cm	0.42 mg/L	1.43 NTU	-55.8 mV	7.40 ft	275.00 ml/min
12/12/2024 12:41 PM	05:00	5.84 pH	17.97 °C	1,964.7 µS/cm	0.29 mg/L	0.85 NTU	-132.8 mV	7.79 ft	275.00 ml/min
12/12/2024 12:46 PM	10:00	5.84 pH	17.92 °C	1,942.3 µS/cm	0.27 mg/L	0.68 NTU	-100.1 mV	7.80 ft	275.00 ml/min
12/12/2024 12:51 PM	15:00	5.85 pH	17.91 °C	1,920.7 µS/cm	0.26 mg/L	0.79 NTU	-99.7 mV	7.80 ft	275.00 ml/min
12/12/2024 12:56 PM	20:00	5.84 pH	17.89 °C	1,894.3 µS/cm	0.25 mg/L	0.60 NTU	-95.3 mV	7.81 ft	275.00 ml/min
12/12/2024 1:01 PM	25:00	5.84 pH	17.87 °C	1,884.4 µS/cm	0.25 mg/L	0.82 NTU	-92.4 mV	7.81 ft	275.00 ml/min

Samples

Sample ID:	Description:
ARK-ARAMW-10	9 bottles: 3 radium, TDS, anions, total metals, nitrate/nitrite, alkalinity, dissolved metals

Low-Flow Test Report:

Test Date / Time: 12/12/2024 2:39:48 PM
Project: Plant Arkwright
Operator Name: Jaiden Stidston

Location Name: Arkwright, AP-2, ARAMW-11 Latitude: 32.9218251458034 Longitude: -83.70279251620126 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.5 ft Total Depth: 40.5 ft Initial Depth to Water: 7.36 ft	Pump Type: Peristaltic Tubing Type: LDPE Tubing Inner Diameter: 0.17 in Tubing Length: 40.5 ft Pump Intake From TOC: 35.5 ft Estimated Total Volume Pumped: 7950 ml Flow Cell Volume: 90 ml Final Flow Rate: 265 ml/min Final Draw Down: 0.3 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082822
--	--	---

Test Notes:
Sample time: 15:15.
Pre-purged well for approximately 14 mins at 265 ml/min (3.71 L).

Weather Conditions:
Sunny 12C

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 %	+/- 10 %	+/- 10	+/- 0.33	
12/12/2024 2:39 PM	00:00	5.49 pH	17.26 °C	1,801.7 µS/cm	0.52 mg/L		72.9 mV	7.36 ft	265.00 ml/min
12/12/2024 2:44 PM	05:00	5.47 pH	17.81 °C	1,771.6 µS/cm	0.30 mg/L	5.16 NTU	39.6 mV	7.66 ft	265.00 ml/min
12/12/2024 2:49 PM	10:00	5.46 pH	18.00 °C	1,763.9 µS/cm	0.27 mg/L	4.72 NTU	24.2 mV	7.66 ft	265.00 ml/min
12/12/2024 2:54 PM	15:00	5.46 pH	17.88 °C	1,760.6 µS/cm	0.26 mg/L	4.82 NTU	20.5 mV	7.66 ft	265.00 ml/min
12/12/2024 2:59 PM	20:00	5.46 pH	17.85 °C	1,749.9 µS/cm	0.25 mg/L	3.57 NTU	18.3 mV	7.66 ft	265.00 ml/min
12/12/2024 3:04 PM	25:00	5.46 pH	17.85 °C	1,740.0 µS/cm	0.24 mg/L	3.77 NTU	16.9 mV	7.66 ft	265.00 ml/min
12/12/2024 3:09 PM	30:00	5.46 pH	17.82 °C	1,732.1 µS/cm	0.24 mg/L	3.83 NTU	16.4 mV	7.66 ft	265.00 ml/min

Samples

Sample ID:	Description:
ARK-ARAMW-11	9 bottles: 3 radium, TDS, anions, total metals, nitrates/nitrite, alkalinity, dissolved metals

Plant Arkwright AP-2 Surface Water Samples August 12, 2024

Sample ID	Date	Time	Temp(°C)	pH	OPR (mV)	DO (mg/L)	Turbidity (NTU)	Conductance (mS/cm)	Coordinates
ARK-BC-0.8a	8/12/2024	1150	25.7	7.35	64.8	7.39	2.69	0.142	32.922739, -83.705772
ARC-BC-0.5.5	8/12/2024	1211	27.1	7.45	158.2	8.09	14.42	0.147	32.920558,-83.701663
ARC-BC-0.5.6	8/12/2024	1217	26.9	7.43	116.2	8.09	5.75	0.157	32.921139, -83.701900
ARC-BC-0.5.7	8/12/2024	1116	25.6	7.51	64.0	7.60	2.78	0.164	32.921547, -83.702854
ARC-BC-BR	8/12/2024	1043	25.1	7.55	166.1	8.45	2.20	0.156	32.920236,-83.699817

B.3 Calibration Data



Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll 400	1080302
Turbidity Meter	Hach 2100Q	23060D000344

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	Dec-24	AIR
pH (SU)	4.00	2405593	Dec-24	AIR
pH (SU)	7.00	24004517	Dec-24	AIR
pH (SU)	10.00	24000085	Dec-24	AIR
D.O. (%)	N/A	N/A	N/A	N/A
ORP (mV)	228.0	24006903	Dec-24	AIR

Calibration					
Time Start		Time Finish			
07:20		07:40			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4497.2	24.64	± 10% of standard	EPA 2023
pH (SU)	4.00	4.06	24.45	± 0.1	GWMP
pH (SU)	7.00	7.03	23.90	± 0.1	GWMP
pH (SU)	10.00	10.04	25.06	± 0.1	GWMP
D.O. (%)	N/A	98.91	22.25	± 10%	NA
ORP (mV)	228.0	224.8	24.55	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.2	± 10% of standard	EPA 2023
	100	101		
	800	823		
	10	9.02		

Calibration Check					
Time Start		Time Finish			
14:20		14:30			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4622.0	35.79	± 10% of standard	EPA 2023
pH (SU)	4.00	4.16	37.21	± 0.1	GWMP
pH (SU)	7.00	7.12	37.1	± 0.1	GWMP
pH (SU)	10.00	9.94	37.74	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.3	± 10% of standard	EPA 2023
	100	101		
	800	792		
	10	10.3		

Notes:

Field Instrumentation Calibration Form

Site Name: GPC Plant Arkwright

Date: 08/20/2024

Calibrated By: Jackson Bankston

Field Conditions: Sunny 70F

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll 400	1080306
Turbidity Meter	Hack 2100Q	22090D000235

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (μS/cm)	4,490	24005593	Dec-24	AIR
pH (SU)	4.00	24005593	Dec-24	AIR
pH (SU)	7.00	240004517	Dec-24	AIR
pH (SU)	10.00	24000085	Dec-24	AIR
D.O. (%)	N/A	N/A	N/A	N/A
ORP (mV)	228.0	24006903	Dec-24	AIR

Calibration					
Time Start	7:48	Time Finish	7:57		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (μS/cm)	4,490	4,465	24.88	± 10% of standard	EPA 2023
pH (SU)	4.00	4.01	24.90	± 0.1	GWMP
pH (SU)	7.00	7.02	29.94	± 0.1	GWMP
pH (SU)	10.00	10.01	29.27	± 0.1	GWMP
D.O. (%)	N/A	99.82	22.88	± 10%	NA
ORP (mV)	228.0	230.2	23.73	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.3	± 10% of standard	EPA 2023
	100	100		
	800	791		
	10	9.58		

Calibration Check					
Time Start	14:50	Time Finish	15:15		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (μS/cm)	4,490	4,521.6	28.72	± 10% of standard	EPA 2023
pH (SU)	4.00	4.06	28.77	± 0.1	GWMP
pH (SU)	7.00	7.05	28.65	± 0.1	GWMP
pH (SU)	10.00	10.05	28.39	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.6	± 10% of standard	EPA 2023
	100	95.6		
	800	812		
	10	9.8		

Notes:

Completed by
Checked by

JB 08/20/2024
AS 08/23/2024

Field Instrumentation Calibration Form

Site Name: GPC Plant Arkwright

Date: 08/20/2024

Calibrated By: John Myer

Field Conditions: Sunny, 70F

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll 400	1082817
Turbidity Meter	Hach 2100Q	22090D000345

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	Dec-24	AIR
pH (SU)	4.00	24005593	Dec-24	AIR
pH (SU)	7.00	24004517	Dec-24	AIR
pH (SU)	10.00	24000085	Dec-24	AIR
D.O. (%)	N/A	N/A	N/A	N/A
ORP (mV)	228.0	24006903	Dec-24	AIR

Calibration					
Time Start	8:30	Time Finish	8:50		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4455	24.5	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	25.0	± 0.1	GWMP
pH (SU)	7.00	7.00	24.9	± 0.1	GWMP
pH (SU)	10.00	10.00	25.1	± 0.1	GWMP
D.O. (%)	N/A	99.9	24.1	± 10%	NA
ORP (mV)	228.0	228.1	24.4	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.6	± 10% of standard	EPA 2023
	100	101		
	800	816		
	10	10.1		

Calibration Check					
Time Start	15:05	Time Finish	15:15		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4608	35.7	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	35.7	± 0.1	GWMP
pH (SU)	7.00	6.99	35.5	± 0.1	GWMP
pH (SU)	10.00	9.91	34.5	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.2	± 10% of standard	EPA 2023
	100	101		
	800	806		
	10	9.66		

Notes:

Completed by
Checked by

JM 08/20/2024
AS 08/23/2024

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll 400	24005593
Turbidity Meter	Hach 2100Q	23080D000159

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24005593	Dec-24	AIR
pH (SU)	4.00	24005593	Dec-24	AIR
pH (SU)	7.00	240045517	Dec-24	AIR
pH (SU)	10.00	24000085	Dec-24	AIR
D.O. (%)	N/A	N/A	N/A	N/A
ORP (mV)	228.0	24006903	Dec-24	AIR

Calibration					
Time Start	7:05	Time Finish	7:15		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,461	25.77	± 10% of standard	EPA 2023
pH (SU)	4.00	4.19	26.04	± 0.1	GWMP
pH (SU)	7.00	7.07	26.68	± 0.1	GWMP
pH (SU)	10.00	10.16	26.68	± 0.1	GWMP
D.O. (%)	N/A	99.98	24.96	± 10%	NA
ORP (mV)	228.0	226.8	26.20	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20	± 10% of standard	EPA 2023
	100	101		
	800	803		
	10	9.6		

Calibration Check					
Time Start	14:09	Time Finish	14:19		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,285.8	29.43	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	29.43	± 0.1	GWMP
pH (SU)	7.00	7.05	28.16	± 0.1	GWMP
pH (SU)	10.00	10.09	27.51	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	10	10	± 10% of standard	EPA 2023
	20	20.8		
	100	101		
	800	780		

Notes:

Field Instrumentation Calibration Form

Site Name: __Arkwright__

Date: __12/12/2024__

Calibrated By: __Andreas S, Jaiden S.____

Field Conditions: __Sunny__ 7.22 °C__

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	IS AQUATROLL	1082822
Turbidity Meter	HACH 2100Q	231000000373

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24010943	May-25	AIR
pH (SU)	4.00	24010943	May-25	AIR
pH (SU)	7.00	24008587	Jun-25	AIR
pH (SU)	10.00	24004996	Jun-25	AIR
D.O. (%)	--	--	--	--
ORP (mV)	228.0	24011792	Jun-25	AIR

Calibration					
Time Start	750	Time Finish	825		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4.489	19.58	± 10% of standard	EPA 2023
pH (SU)	4.00	4.08	19.58	± 0.1	GWMP
pH (SU)	7.00	7.08	19.33	± 0.1	GWMP
pH (SU)	10.00	10.13	19.22	± 0.1	GWMP
D.O. (%)	N/A	100	19.73	± 10%	NA
ORP (mV)	228.0	227.4	19.26	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	10	9.82	± 10% of standard	EPA 2023
	20	19.6		
	100	96.8		
	800	780		

Calibration Check					
Time Start	1150	Time Finish	1220		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4433.5	22.19	± 10% of standard	EPA 2023
pH (SU)	4.00	4.03	22.20	± 0.1	GWMP
pH (SU)	7.00	7.03	21.29	± 0.1	GWMP
pH (SU)	10.00	10.09	21.77	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
			± 10% of standard	EPA 2023

Notes:

Did not complete the calibration check for the turbidity meter due to it having been unknowingly picked up by Atlanta Instrument Rentals (AIR) during the calibration check of the AQUATROLL.

B.4 Groundwater and Surface Water Laboratory Analytical Reports



September 05, 2024

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Arkwright CCR Groundwater Compliance 175569434
Work Order: 682093

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 21, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Two of the containers for sample ID 682093009(ARK-ARAMW-8) are labeled with the collection date 8/19. Collection date was used from chain of custody. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
682093001	ARK-ARGWA-19	Ground Water	08/20/24 09:10	08/21/24 14:00
682093002	ARK-ARGWA-20	Ground Water	08/20/24 09:35	08/21/24 14:00
682093003	ARK-ARGWC-21	Ground Water	08/20/24 15:15	08/21/24 14:00
682093004	ARK-ARGWC-22	Ground Water	08/20/24 14:05	08/21/24 14:00
682093005	ARK-ARGWC-23	Ground Water	08/20/24 12:50	08/21/24 14:00
682093006	ARK-ARAMW-1	Ground Water	08/20/24 13:15	08/21/24 14:00
682093007	ARK-ARAMW-2	Ground Water	08/20/24 11:45	08/21/24 14:00
682093008	ARK-ARAMW-7	Ground Water	08/20/24 13:05	08/21/24 14:00
682093009	ARK-ARAMW-8	Ground Water	08/20/24 09:35	08/21/24 14:00
682093010	ARK-ARAMW-9	Ground Water	08/20/24 11:50	08/21/24 14:00
682093011	ARK-AP2-EB-03	Water	08/20/24 14:40	08/21/24 14:00
682093012	ARK-AP2-FD-03	Water	08/20/24 12:00	08/21/24 14:00
682093013	ARK-AP2-FB-03	Water	08/20/24 12:00	08/21/24 14:00

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.



Prep Methods and Prep Dates

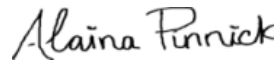
<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	23-AUG-2024
SW846 7470A Prep	22-AUG-2024
SW846 7470A Prep	23-AUG-2024

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	24-AUG-2024
EPA 300.0	25-AUG-2024
EPA 300.0	26-AUG-2024
EPA 353.2 Low Level	23-AUG-2024
SM 2320B	22-AUG-2024
SM 2540C	27-AUG-2024
SW846 3005A/6020B	01-SEP-2024
SW846 3005A/6020B	31-AUG-2024
SW846 7470A	23-AUG-2024
SW846 7470A	26-AUG-2024

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4443.

Sincerely,

A handwritten signature in black ink that reads "Alaina Pinnick". The script is cursive and fluid, with the first name "Alaina" and last name "Pinnick" clearly legible.

Alaina Pinnick
Project Manager

Purchase Order: GPC82177-0005
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 682093 GEL Work Order: 682093

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Alaina Pinnick.

Reviewed by

Alaina Pinnick

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWA-19
Sample ID: 682093001
Matrix: WG
Collect Date: 20-AUG-24 09:10
Receive Date: 21-AUG-24
Collector: Client

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.89	0.0670	0.200	mg/L		1	CH6	08/24/24	1904	2662125	1
Fluoride	J	0.0679	0.0330	0.100	mg/L		1					
Sulfate		7.07	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1110	2660787	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum	U	ND	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1312	2661534	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0236	0.00520	0.0150	mg/L	1.00	1					
Calcium		8.29	0.0800	0.200	mg/L	1.00	1					
Lithium	J	0.00376	0.00300	0.0100	mg/L	1.00	1					
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1739	2661534	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0293	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		3.52	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000375	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.03	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		9.61	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		1.74	0.0350	0.100	mg/L		5	AXH3	08/23/24	0715	2660961	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWA-19
Sample ID: 682093001

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		91.0	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		37.5	0.725	2.00	mg/L			JW2	08/22/24	1105	2661203	7
Bicarbonate alkalinity (CaCO ₃)		37.5	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2660785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	EPA 353.2 Low Level	
6	SM 2540C	
7	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWA-20 Project: GPCC00100
Sample ID: 682093002 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 09:35
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		7.63	0.0670	0.200	mg/L		1	CH6	08/24/24	1935	2662125	1
Fluoride	J	0.0488	0.0330	0.100	mg/L		1					
Sulfate		16.4	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1112	2660787	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum		0.0748	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1318	2661534	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0537	0.00520	0.0150	mg/L	1.00	1					
Calcium		10.6	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Manganese	J	0.00343	0.00100	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1813	2661534	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0863	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00598	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.110	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		5.83	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		1.51	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		11.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.835	0.0350	0.100	mg/L		5	AXH3	08/23/24	0716	2660961	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWA-20
Sample ID: 682093002

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		113	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	6
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		41.2	0.725	2.00	mg/L			JW2	08/22/24	1106	2661203	7
Bicarbonate alkalinity (CaCO ₃)		41.2	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2660785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	EPA 353.2 Low Level	
6	SM 2540C	
7	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID:	ARK-ARGWC-21	Project:	GPCC00100
Sample ID:	682093003	Client ID:	GPCC001
Matrix:	WG		
Collect Date:	20-AUG-24 15:15		
Receive Date:	21-AUG-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		219	2.66	8.00	mg/L		20	CH6	08/26/24	1539	2662125	1
Chloride		3.18	0.0670	0.200	mg/L		1	CH6	08/24/24	2005	2662125	2
Fluoride		0.124	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1114	2660787	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum	U	ND	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1359	2661534	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lithium		0.0119	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.322	0.00100	0.00500	mg/L	1.00	1					
Boron		1.13	0.0520	0.150	mg/L	1.00	10	BAJ	09/01/24	1335	2661534	5
Calcium		78.0	0.800	2.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1818	2661534	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0431	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000769	0.000300	0.00100	mg/L	1.00	1					
Iron		0.579	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		39.4	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.12	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		20.2	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0718	2660961	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-21 Project: GPCC00100
Sample ID: 682093003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		520	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		160	0.725	2.00	mg/L			JW2	08/22/24	1107	2661203	9
Bicarbonate alkalinity (CaCO3)		160	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2660785

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	EPA 353.2 Low Level	
8	SM 2540C	
9	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Company : Georgia Power Company, Southern Company
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Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-22 Project: GPCC00100
Sample ID: 682093004 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 14:05
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		674	6.65	20.0	mg/L		50	CH6	08/26/24	1610	2662125	1
Chloride		7.25	0.0670	0.200	mg/L		1	CH6	08/24/24	2036	2662125	2
Fluoride	J	0.0660	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1115	2660787	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1824	2661534	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0223	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00279	0.000300	0.00100	mg/L	1.00	1					
Iron		6.00	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	J	0.000406	0.000200	0.00100	mg/L	1.00	1					
Potassium		4.45	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		26.6	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Aluminum	J	0.0230	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1400	2661534	5
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lithium		0.0200	0.00300	0.0100	mg/L	1.00	1					
Boron		3.09	0.130	0.375	mg/L	1.00	25	BAJ	09/01/24	1336	2661534	6
Calcium		194	2.00	5.00	mg/L	1.00	25					
Manganese		17.2	0.0250	0.125	mg/L	1.00	25					
Magnesium		80.2	0.0500	0.150	mg/L	1.00	5	BAJ	08/31/24	1827	2661534	7
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.122	0.00700	0.0200	mg/L		1	JLD1	08/23/24	1005	2660961	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-22 Project: GPCC00100
Sample ID: 682093004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1180	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		136	0.725	2.00	mg/L			JW2	08/22/24	1110	2661203	10
Bicarbonate alkalinity (CaCO3)		136	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2660785
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	EPA 353.2 Low Level	
9	SM 2540C	
10	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Company : Georgia Power Company, Southern Company
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Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-23 Project: GPCC00100
Sample ID: 682093005 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 12:50
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		80.1	1.33	4.00	mg/L		10	CH6	08/26/24	1641	2662125	1
Chloride		3.68	0.0670	0.200	mg/L		1	CH6	08/24/24	2107	2662125	2
Fluoride		0.365	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1200	2661395	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum	U	ND	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1407	2661534	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lithium		0.0469	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.281	0.00100	0.00500	mg/L	1.00	1					
Boron		0.434	0.0260	0.0750	mg/L	1.00	5	BAJ	09/01/24	1329	2661534	5
Calcium		79.6	0.400	1.00	mg/L	1.00	5					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1830	2661534	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.105	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000484	0.000300	0.00100	mg/L	1.00	1					
Iron	U	ND	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		14.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.0740	0.000200	0.00100	mg/L	1.00	1					
Potassium		2.08	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		16.1	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.975	0.0350	0.100	mg/L		5	AXH3	08/23/24	0721	2660961	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-23 Project: GPCC00100
Sample ID: 682093005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		328	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		185	0.725	2.00	mg/L			JW2	08/22/24	1112	2661203	9
Bicarbonate alkalinity (CaCO ₃)		185	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661392

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	EPA 353.2 Low Level	
8	SM 2540C	
9	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-1 Project: GPCC00100
Sample ID: 682093006 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 13:15
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		211	2.66	8.00	mg/L		20	CH6	08/26/24	1813	2662125	1
Chloride		3.27	0.0670	0.200	mg/L		1	CH6	08/24/24	2138	2662125	2
Fluoride		0.169	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1206	2661395	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.49	0.130	0.375	mg/L	1.00	25	BAJ	09/01/24	1332	2661534	4
Calcium		85.4	2.00	5.00	mg/L	1.00	25					
Aluminum	U	ND	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1402	2661534	5
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lithium	J	0.00934	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.133	0.00100	0.00500	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1841	2661534	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0389	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron	J	0.0976	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		39.2	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00873	0.000200	0.00100	mg/L	1.00	1					
Potassium		5.38	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		20.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0722	2660961	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-1 Project: GPCC00100
Sample ID: 682093006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		538	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		178	0.725	2.00	mg/L			JW2	08/22/24	1114	2661203	9
Bicarbonate alkalinity (CaCO3)		178	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661392
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	EPA 353.2 Low Level	
8	SM 2540C	
9	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-2 Project: GPCC00100
Sample ID: 682093007 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 11:45
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		3.24	0.0670	0.200	mg/L		1	CH6	08/24/24	2209	2662125	1
Fluoride		0.123	0.0330	0.100	mg/L		1					
Sulfate		232	2.66	8.00	mg/L		20	CH6	08/26/24	1844	2662125	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1207	2661395	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.28	0.130	0.375	mg/L	1.00	25	BAJ	09/01/24	1334	2661534	4
Calcium		85.2	2.00	5.00	mg/L	1.00	25					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1846	2661534	5
Arsenic	J	0.00392	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0560	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00166	0.000300	0.00100	mg/L	1.00	1					
Iron		2.62	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		36.2	0.0100	0.0300	mg/L	1.00	1					
Molybdenum	J	0.000585	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.25	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		19.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Aluminum	U	ND	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1403	2661534	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lithium		0.0145	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.475	0.00100	0.00500	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	J	0.0150	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0724	2660961	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-2 Project: GPCC00100
Sample ID: 682093007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		564	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		158	0.725	2.00	mg/L			JW2	08/22/24	1115	2661203	9
Bicarbonate alkalinity (CaCO ₃)		158	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661392

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	EPA 353.2 Low Level	
8	SM 2540C	
9	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-7
Sample ID: 682093008
Matrix: WG
Collect Date: 20-AUG-24 13:05
Receive Date: 21-AUG-24
Collector: Client

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		1010	13.3	40.0	mg/L		100	CH6	08/24/24	2240	2662125	1
Chloride		5.13	0.134	0.400	mg/L		2	CH6	08/26/24	1915	2662125	2
Fluoride	J	0.118	0.0660	0.200	mg/L		2					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1209	2661395	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum		0.0935	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1404	2661534	4
Beryllium	J	0.000318	0.000200	0.000500	mg/L	1.00	1					
Lithium		0.0585	0.00300	0.0100	mg/L	1.00	1					
Magnesium		79.7	0.0500	0.150	mg/L	1.00	5	BAJ	08/31/24	1855	2661534	5
Boron		2.44	0.260	0.750	mg/L	1.00	50	BAJ	09/01/24	1346	2661534	6
Calcium		284	4.00	10.0	mg/L	1.00	50					
Manganese		13.7	0.0500	0.250	mg/L	1.00	50					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1852	2661534	7
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0277	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0702	0.000300	0.00100	mg/L	1.00	1					
Iron		4.83	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	J	0.000257	0.000200	0.00100	mg/L	1.00	1					
Potassium		9.23	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		27.6	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0725	2660961	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-7
Sample ID: 682093008
Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1590	23.8	100	mg/L			KLP1	08/27/24	1058	2663138	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		58.6	0.725	2.00	mg/L			JW2	08/22/24	1117	2661203	10
Bicarbonate alkalinity (CaCO3)		58.6	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661392

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	EPA 353.2 Low Level	
9	SM 2540C	
10	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-8 Project: GPCC00100
Sample ID: 682093009 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 09:35
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		109	1.33	4.00	mg/L		10	CH6	08/26/24	1946	2662125	1
Chloride		4.54	0.0670	0.200	mg/L		1	CH6	08/24/24	2311	2662125	2
Fluoride		0.199	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1210	2661395	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.675	0.0260	0.0750	mg/L	1.00	5	BAJ	09/01/24	1330	2661534	4
Calcium		79.2	0.400	1.00	mg/L	1.00	5					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1858	2661534	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.112	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00277	0.000300	0.00100	mg/L	1.00	1					
Iron		0.244	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		33.7	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.195	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.91	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		17.7	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Aluminum	J	0.0279	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1408	2661534	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Lithium	J	0.00586	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.187	0.00100	0.00500	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0727	2660961	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-8 Project: GPCC00100
Sample ID: 682093009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		422	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	8
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		251	0.725	2.00	mg/L			JW2	08/22/24	1118	2661203	9
Bicarbonate alkalinity (CaCO ₃)		251	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661392

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	EPA 353.2 Low Level	
8	SM 2540C	
9	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-9
Sample ID: 682093010
Matrix: WG
Collect Date: 20-AUG-24 11:50
Receive Date: 21-AUG-24
Collector: Client

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		35.2	3.35	10.0	mg/L		50	CH6	08/26/24	1017	2662125	1
Sulfate		416	6.65	20.0	mg/L		50					
Fluoride		0.889	0.0330	0.100	mg/L		1	CH6	08/24/24	2342	2662125	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1212	2661395	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Aluminum		0.0744	0.0193	0.0500	mg/L	1.00	1	BAJ	09/01/24	1354	2661534	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Boron		0.0490	0.00520	0.0150	mg/L	1.00	1					
Lithium	J	0.00958	0.00300	0.0100	mg/L	1.00	1					
Manganese		0.140	0.00100	0.00500	mg/L	1.00	1					
Calcium		160	0.400	1.00	mg/L	1.00	5	BAJ	09/01/24	1347	2661534	5
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1909	2661534	6
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0105	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Iron		0.653	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		11.1	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00237	0.000200	0.00100	mg/L	1.00	1					
Potassium		6.00	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Sodium		75.0	0.400	1.25	mg/L	1.00	5	BAJ	08/31/24	1912	2661534	7
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0728	2660961	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-9 Project: GPCC00100
Sample ID: 682093010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		670	23.8	100	mg/L			KLP1	08/27/24	1058	2663138	9
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		91.9	0.725	2.00	mg/L			JW2	08/22/24	1120	2661203	10
Bicarbonate alkalinity (CaCO3)		91.9	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO3)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661392
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	EPA 353.2 Low Level	
9	SM 2540C	
10	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-AP2-EB-03
Sample ID: 682093011
Matrix: WQ
Collect Date: 20-AUG-24 14:40
Receive Date: 21-AUG-24
Collector: Client

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.187	0.0670	0.200	mg/L		1	CH6	08/25/24	0114	2662125	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1141	2661400	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/01/24	1344	2661534	3
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1915	2661534	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0739	2660961	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661398

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-AP2-EB-03
Sample ID: 682093011

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	EPA 300.0											
2	SW846 7470A											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	EPA 353.2 Low Level											
6	SM 2540C											

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham

Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-AP2-FD-03

Project: GPCC00100

Sample ID: 682093012

Client ID: GPCC001

Matrix: WQ

Collect Date: 20-AUG-24 12:00

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		108	1.33	4.00	mg/L		10	CH6	08/26/24	2047	2662125	1
Chloride		4.53	0.0670	0.200	mg/L		1	CH6	08/25/24	0145	2662125	2
Fluoride		0.198	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1146	2661400	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1920	2661534	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.111	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00298	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum		0.187	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/01/24	1405	2661534	5
Lithium	J	0.00550	0.00300	0.0100	mg/L	1.00	1					
Boron		0.657	0.0260	0.0750	mg/L	1.00	5	BAJ	09/01/24	1331	2661534	6
Calcium		77.4	0.400	1.00	mg/L	1.00	5					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		2.98	0.0350	0.100	mg/L		5	AXH3	08/23/24	0740	2660961	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		438	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	08/23/24	1445	2661533
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661398

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-AP2-FD-03
Sample ID: 682093012

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description		Analyst Comments									
1	EPA 300.0											
2	EPA 300.0											
3	SW846 7470A											
4	SW846 3005A/6020B											
5	SW846 3005A/6020B											
6	SW846 3005A/6020B											
7	EPA 353.2 Low Level											
8	SM 2540C											

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-AP2-FB-03 Project: GPCC00100
Sample ID: 682093013 Client ID: GPCC001
Matrix: WQ
Collect Date: 20-AUG-24 12:00
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	CH6	08/25/24	0216	2662125	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1147	2661400	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/01/24	1345	2661534	3
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	08/31/24	1926	2661534	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.0810	0.00700	0.0200	mg/L		1	AXH3	08/23/24	0742	2660961	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			KLP1	08/27/24	1058	2663138	6
The following Prep Methods were performed:												
Method	Description		Analyst		Date		Time	Prep Batch				
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid		JM13		08/23/24		1030	2661398				
SW846 3005A	ICP-MS 3005A PREP		BB2		08/23/24		1445	2661533				

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-AP2-FB-03
Sample ID: 682093013

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
The following Analytical Methods were performed:												
Method	Description										Analyst Comments	
1	EPA 300.0											
2	SW846 7470A											
3	SW846 3005A/6020B											
4	SW846 3005A/6020B											
5	EPA 353.2 Low Level											
6	SM 2540C											

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 5, 2024

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Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 682093

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2662125										
QC1205833347	682055001	DUP									
Chloride		86.5		86.9	mg/L	0.448		(0%-20%)	CH6	08/26/24	11:32
Fluoride	J	0.0610	J	0.0568	mg/L	7.13	^	(+/-0.100)		08/24/24	14:26
Sulfate		2.76		2.72	mg/L	1.47		(0%-20%)			
QC1205833349	682055003	DUP									
Chloride		53.0		53.0	mg/L	0.0566	^	(+/-20.0)		08/24/24	15:59
Fluoride	J	0.0768	J	0.0649	mg/L	16.8	^	(+/-0.100)		08/26/24	13:05
Sulfate		734		737	mg/L	0.362		(0%-20%)		08/24/24	15:59
QC1205833346	LCS										
Chloride	5.00			4.73	mg/L			94.5 (90%-110%)		08/24/24	13:24
Fluoride	2.50			2.42	mg/L			96.7 (90%-110%)			
Sulfate	10.0			9.55	mg/L			95.5 (90%-110%)			
QC1205833345	MB										
Chloride			U	ND	mg/L					08/24/24	12:54
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						

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QC Summary

Workorder: 682093

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2662125										
QC1205833348	682055001	PS									
Chloride	5.00	4.32		9.65	mg/L		106	(90%-110%)	CH6	08/26/24	12:03
Fluoride	2.50	J 0.0610		2.45	mg/L		95.6	(90%-110%)		08/24/24	14:57
Sulfate	10.0	2.76		12.5	mg/L		97.5	(90%-110%)			
QC1205833350	682055003	PS									
Chloride	5.00	0.530		5.20	mg/L		93.3	(90%-110%)		08/24/24	16:29
Fluoride	2.50	J 0.0768		2.67	mg/L		104	(90%-110%)		08/26/24	13:36
Sulfate	10.0	7.34		17.2	mg/L		99.1	(90%-110%)		08/24/24	16:29
Metals Analysis - ICPMS											
Batch	2661534										
QC1205831833	LCS										
Aluminum	2.00			2.05	mg/L		102	(80%-120%)	BAJ	09/01/24	13:10
Antimony	0.0500			0.0488	mg/L		97.5	(80%-120%)		08/31/24	17:31
Arsenic	0.0500			0.0477	mg/L		95.4	(80%-120%)			
Barium	0.0500			0.0489	mg/L		97.9	(80%-120%)			
Beryllium	0.0500			0.0502	mg/L		100	(80%-120%)		09/01/24	13:10
Boron	0.100			0.0999	mg/L		99.9	(80%-120%)			
Cadmium	0.0500			0.0495	mg/L		99	(80%-120%)		08/31/24	17:31

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QC Summary

Workorder: 682093

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661534										
Calcium	2.00			2.09	mg/L		104	(80%-120%)	BAJ	09/01/24	13:10
Chromium	0.0500			0.0483	mg/L		96.5	(80%-120%)		08/31/24	17:31
Cobalt	0.0500			0.0484	mg/L		96.8	(80%-120%)			
Iron	2.00			1.92	mg/L		95.9	(80%-120%)			
Lead	0.0500			0.0496	mg/L		99.1	(80%-120%)			
Lithium	0.0500			0.0491	mg/L		98.2	(80%-120%)		09/01/24	13:10
Magnesium	2.00			2.07	mg/L		103	(80%-120%)		08/31/24	17:31
Manganese	0.0500			0.0493	mg/L		98.7	(80%-120%)		09/01/24	13:10
Molybdenum	0.0500			0.0492	mg/L		98.3	(80%-120%)		08/31/24	17:31
Potassium	2.00			1.99	mg/L		99.3	(80%-120%)			
Selenium	0.0500			0.0479	mg/L		95.7	(80%-120%)			
Silver	0.0500			0.0506	mg/L		101	(80%-120%)			
Sodium	2.00			2.06	mg/L		103	(80%-120%)			
Thallium	0.0500			0.0462	mg/L		92.4	(80%-120%)			

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QC Summary

Workorder: 682093

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661534										
QC1205831832	MB										
Aluminum			U	ND	mg/L				BAJ	09/01/24	13:09
Antimony			U	ND	mg/L					08/31/24	17:28
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					09/01/24	13:09
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					08/31/24	17:28
Calcium			U	ND	mg/L					09/01/24	13:09
Chromium			U	ND	mg/L					08/31/24	17:28
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L					09/01/24	13:09
Magnesium			U	ND	mg/L					08/31/24	17:28

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QC Summary

Workorder: 682093

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661534										
Manganese			U	ND	mg/L				BAJ	09/01/24	13:09
Molybdenum			U	ND	mg/L					08/31/24	17:28
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Silver			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205831834 682093001 MS											
Aluminum	2.00	U	ND	2.10	mg/L		105	(75%-125%)		09/01/24	13:13
Antimony	0.0500	U	ND	0.0501	mg/L		100	(75%-125%)		08/31/24	17:42
Arsenic	0.0500	U	ND	0.0497	mg/L		99.3	(75%-125%)			
Barium	0.0500		0.0293	0.0793	mg/L		100	(75%-125%)			
Beryllium	0.0500	U	ND	0.0510	mg/L		102	(75%-125%)		09/01/24	13:13
Boron	0.100		0.0236	0.118	mg/L		94.2	(75%-125%)			
Cadmium	0.0500	U	ND	0.0501	mg/L		100	(75%-125%)		08/31/24	17:42

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2661534											
Calcium	2.00		8.29		10.7	mg/L		N/A	(75%-125%)	BAJ	09/01/24	13:13
Chromium	0.0500	U	ND		0.0510	mg/L		99.4	(75%-125%)		08/31/24	17:42
Cobalt	0.0500	U	ND		0.0487	mg/L		97.4	(75%-125%)			
Iron	2.00	U	ND		1.94	mg/L		96.2	(75%-125%)			
Lead	0.0500	U	ND		0.0493	mg/L		98.6	(75%-125%)			
Lithium	0.0500	J	0.00376		0.0545	mg/L		102	(75%-125%)		09/01/24	13:13
Magnesium	2.00		3.52		5.76	mg/L		112	(75%-125%)		08/31/24	17:42
Manganese	0.0500	U	ND		0.0502	mg/L		99.4	(75%-125%)		09/01/24	13:13
Molybdenum	0.0500	J	0.000375		0.0527	mg/L		105	(75%-125%)		08/31/24	17:42
Potassium	2.00		2.03		4.10	mg/L		104	(75%-125%)			
Selenium	0.0500	U	ND		0.0486	mg/L		97	(75%-125%)			
Silver	0.0500	U	ND		0.0516	mg/L		103	(75%-125%)			
Sodium	2.00		9.61		11.8	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND		0.0466	mg/L		93.3	(75%-125%)			

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2661534											
QC1205831835	682093001	MSD										
Aluminum	2.00	U	ND		2.15	mg/L	2.29	107	(0%-20%)	BAJ	09/01/24	13:14
Antimony	0.0500	U	ND		0.0447	mg/L	11.2	89.4	(0%-20%)		08/31/24	17:45
Arsenic	0.0500	U	ND		0.0502	mg/L	1.18	100	(0%-20%)			
Barium	0.0500		0.0293		0.0804	mg/L	1.38	102	(0%-20%)			
Beryllium	0.0500	U	ND		0.0520	mg/L	1.89	104	(0%-20%)		09/01/24	13:14
Boron	0.100		0.0236		0.123	mg/L	4.03	99.1	(0%-20%)			
Cadmium	0.0500	U	ND		0.0509	mg/L	1.51	102	(0%-20%)		08/31/24	17:45
Calcium	2.00		8.29		10.8	mg/L	1.21	N/A	(0%-20%)		09/01/24	13:14
Chromium	0.0500	U	ND		0.0517	mg/L	1.45	101	(0%-20%)		08/31/24	17:45
Cobalt	0.0500	U	ND		0.0501	mg/L	2.7	100	(0%-20%)			
Iron	2.00	U	ND		2.02	mg/L	4.4	101	(0%-20%)			
Lead	0.0500	U	ND		0.0508	mg/L	3.07	102	(0%-20%)			
Lithium	0.0500	J	0.00376		0.0549	mg/L	0.755	102	(0%-20%)		09/01/24	13:14
Magnesium	2.00		3.52		5.81	mg/L	0.904	114	(0%-20%)		08/31/24	17:45

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2661534											
Manganese	0.0500	U	ND		0.0515	mg/L	2.54	102	(0%-20%)	BAJ	09/01/24	13:14
Molybdenum	0.0500	J	0.000375		0.0470	mg/L	11.4	93.2	(0%-20%)		08/31/24	17:45
Potassium	2.00		2.03		4.24	mg/L	3.18	111	(0%-20%)			
Selenium	0.0500	U	ND		0.0501	mg/L	3.03	100	(0%-20%)			
Silver	0.0500	U	ND		0.0527	mg/L	2.21	105	(0%-20%)			
Sodium	2.00		9.61		12.0	mg/L	1.61	N/A	(0%-20%)			
Thallium	0.0500	U	ND		0.0481	mg/L	3.04	96.2	(0%-20%)			
QC1205831836 682093001 SDILT												
Aluminum		U	ND	U	ND	ug/L	N/A		(0%-20%)		09/01/24	13:17
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/24	17:50
Arsenic		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Barium			29.3		5.98	ug/L	1.93		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A		(0%-20%)		09/01/24	13:17
Boron			23.6	J	9.75	ug/L	106		(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/24	17:50

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661534										
Calcium		8290		1700	ug/L	2.85		(0%-20%)	BAJ	09/01/24	13:17
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/24	17:50
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Iron	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	J	3.76	U	ND	ug/L	N/A		(0%-20%)		09/01/24	13:17
Magnesium		3520		737	ug/L	4.66		(0%-20%)		08/31/24	17:50
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/01/24	13:17
Molybdenum	J	0.375	U	ND	ug/L	N/A		(0%-20%)		08/31/24	17:50
Potassium		2030		410	ug/L	1.27		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		9610		2060	ug/L	6.95		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2660787										
QC1205830153	681888001	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	08/23/24	10:41
QC1205830149	LCS										
Mercury	0.00200				0.00193	mg/L	96.6	(80%-120%)		08/23/24	10:23
QC1205830148	MB										
Mercury			U		ND	mg/L				08/23/24	10:21
QC1205830154	681888001	MS									
Mercury	0.00200	U	ND		0.00195	mg/L	97.7	(75%-125%)		08/23/24	10:43
QC1205830155	681888001	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/23/24	10:44
Batch	2661395										
QC1205831541	682123001	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	08/26/24	12:15
QC1205831540	LCS										
Mercury	0.00200				0.00205	mg/L	102	(80%-120%)		08/26/24	11:59
QC1205831539	MB										
Mercury			U		ND	mg/L				08/26/24	11:57
QC1205831542	682123001	MS									
Mercury	0.00200	U	ND		0.00196	mg/L	98	(75%-125%)		08/26/24	12:17
QC1205831543	682123001	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/26/24	12:18

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2661400										
QC1205831549	681947004	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	08/26/24	11:18
QC1205831548	LCS										
Mercury	0.00200				0.00209	mg/L	104	(80%-120%)		08/26/24	11:10
QC1205831547	MB										
Mercury			U		ND	mg/L				08/26/24	11:08
QC1205831550	681947004	MS									
Mercury	0.00200	U	ND		0.00212	mg/L	106	(75%-125%)		08/26/24	11:20
QC1205831551	681947004	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/26/24	11:21
Nutrient Analysis											
Batch	2660961										
QC1205830578	681878004	DUP									
Nitrogen, Nitrate/Nitrite			3.65		3.65	mg/L	0.137	(0%-20%)	AXH3	08/23/24	06:55
QC1205830577	LCS										
Nitrogen, Nitrate/Nitrite	1.00				1.02	mg/L	102	(90%-110%)		08/23/24	06:52
QC1205830576	MB										
Nitrogen, Nitrate/Nitrite			U		ND	mg/L				08/23/24	06:51
QC1205830579	681878004	PS									
Nitrogen, Nitrate/Nitrite	1.00		0.730		1.72	mg/L	98.7	(90%-110%)		08/23/24	06:57
Solids Analysis											
Batch	2663138										
QC1205835765	681869001	DUP									
Total Dissolved Solids			11000		10600	mg/L	3.42	(0%-5%)	KLP1	08/27/24	10:58

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch	2663138										
QC1205835764	LCS										
Total Dissolved Solids	300			296	mg/L		98.7	(95%-105%)	KLP1	08/27/24	10:58
QC1205835763	MB										
Total Dissolved Solids			U	ND	mg/L					08/27/24	10:58
Titration and Ion Analysis											
Batch	2661203										
QC1205831115	LCS										
Alkalinity, Total as CaCO3	50.0			52.9	mg/L		106	(90%-110%)	JW2	08/22/24	11:01
QC1205831120	LCS										
Alkalinity, Total as CaCO3	15.0			14.5	mg/L		96.7	(90%-110%)		08/22/24	11:03
QC1205831121	LCSD										
Alkalinity, Total as CaCO3	50.0			53.3	mg/L	0.753	107	(0%-20%)		08/22/24	11:02
QC1205831122	LCSD										
Alkalinity, Total as CaCO3	15.0			14.9	mg/L	2.72	99.3	(0%-20%)		08/22/24	11:04

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
N1	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
R	Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.										
B	The target analyte was detected in the associated blank.										
e	5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes										
J	See case narrative for an explanation										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative
Georgia Power Company
SDG #: 682093**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2661534

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 15

Preparation Batch: 2661533

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093001	ARK-ARGWA-19
682093002	ARK-ARGWA-20
682093003	ARK-ARGWC-21
682093004	ARK-ARGWC-22
682093005	ARK-ARGWC-23
682093006	ARK-ARAMW-1
682093007	ARK-ARAMW-2
682093008	ARK-ARAMW-7
682093009	ARK-ARAMW-8
682093010	ARK-ARAMW-9
682093011	ARK-AP2-EB-03
682093012	ARK-AP2-FD-03
682093013	ARK-AP2-FB-03
1205831832	Method Blank (MB) ICP-MS
1205831833	Laboratory Control Sample (LCS)
1205831836	682093001(ARK-ARGWA-19L) Serial Dilution (SD)
1205831834	682093001(ARK-ARGWA-19S) Matrix Spike (MS)
1205831835	682093001(ARK-ARGWA-19SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 682093003 (ARK-ARGWC-21), 682093004 (ARK-ARGWC-22), 682093005 (ARK-ARGWC-23), 682093006 (ARK-ARAMW-1), 682093007 (ARK-ARAMW-2), 682093008 (ARK-ARAMW-7), 682093009 (ARK-ARAMW-8), 682093010 (ARK-ARAMW-9) and 682093012 (ARK-AP2-FD-03) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	682093									
	003	004	005	006	007	008	009	010	012	
Boron	10X	25X	5X	25X	25X	50X	5X	1X	5X	
Calcium	10X	25X	5X	25X	25X	50X	5X	5X	5X	
Magnesium	1X	5X	1X	1X	1X	5X	1X	1X		
Manganese	1X	25X	1X	1X	1X	50X	1X	1X		
Sodium	1X	1X	1X	1X	1X	1X	1X	5X		

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2660787

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2660785

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093001	ARK-ARGWA-19
682093002	ARK-ARGWA-20
682093003	ARK-ARGWC-21
682093004	ARK-ARGWC-22
1205830148	Method Blank (MB)CVAA
1205830149	Laboratory Control Sample (LCS)
1205830155	681888001(NonSDGL) Serial Dilution (SD)
1205830153	681888001(NonSDGD) Sample Duplicate (DUP)
1205830154	681888001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2661395

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2661392

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093005	ARK-ARGWC-23
682093006	ARK-ARAMW-1
682093007	ARK-ARAMW-2
682093008	ARK-ARAMW-7
682093009	ARK-ARAMW-8
682093010	ARK-ARAMW-9
1205831539	Method Blank (MB)CVAA
1205831540	Laboratory Control Sample (LCS)
1205831543	682123001(NonSDGL) Serial Dilution (SD)
1205831541	682123001(NonSDGD) Sample Duplicate (DUP)
1205831542	682123001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2661400

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2661398

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093011	ARK-AP2-EB-03
682093012	ARK-AP2-FD-03
682093013	ARK-AP2-FB-03
1205831547	Method Blank (MB)CVAA
1205831548	Laboratory Control Sample (LCS)
1205831551	681947004(NonSDGL) Serial Dilution (SD)
1205831549	681947004(NonSDGD) Sample Duplicate (DUP)
1205831550	681947004(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 35

Analytical Batch: 2662125

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093001	ARK-ARGWA-19
682093002	ARK-ARGWA-20
682093003	ARK-ARGWC-21
682093004	ARK-ARGWC-22
682093005	ARK-ARGWC-23
682093006	ARK-ARAMW-1
682093007	ARK-ARAMW-2
682093008	ARK-ARAMW-7
682093009	ARK-ARAMW-8
682093010	ARK-ARAMW-9
682093011	ARK-AP2-EB-03
682093012	ARK-AP2-FD-03
682093013	ARK-AP2-FB-03
1205833345	Method Blank (MB)
1205833346	Laboratory Control Sample (LCS)
1205833347	682055001(NonSDG) Sample Duplicate (DUP)
1205833348	682055001(NonSDG) Post Spike (PS)
1205833349	682055003(NonSDG) Sample Duplicate (DUP)
1205833350	682055003(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information**Sample Dilutions**

The following samples 1205833347 (Non SDG 682055001DUP), 1205833348 (Non SDG 682055001PS), 682093003 (ARK-ARGWC-21), 682093004 (ARK-ARGWC-22), 682093005 (ARK-ARGWC-23), 682093006 (ARK-ARAMW-1), 682093007 (ARK-ARAMW-2), 682093008 (ARK-ARAMW-7), 682093009 (ARK-ARAMW-8), 682093010 (ARK-ARAMW-9) and 682093012 (ARK-AP2-FD-03) were diluted because target analyte concentrations exceeded the calibration range. Sample 682093008 (ARK-ARAMW-7) was diluted to minimize matrix effects on instrument performance. Samples 1205833349 (Non SDG 682055003DUP), 1205833350 (Non SDG 682055003PS) and 682093008 (ARK-ARAMW-7) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte

concentrations into the linear calibration range.

Analyte	682093								
	003	004	005	006	007	008	009	010	012
Chloride	1X	1X	1X	1X	1X	2X	1X	50X	1X
Fluoride	1X	1X	1X	1X	1X	2X	1X	1X	1X
Sulfate	20X	50X	10X	20X	20X	100X	10X	50X	10X

Miscellaneous Information

Manual Integrations

Samples 682093001 (ARK-ARGWA-19), 682093002 (ARK-ARGWA-20), 682093003 (ARK-ARGWC-21), 682093004 (ARK-ARGWC-22), 682093005 (ARK-ARGWC-23), 682093006 (ARK-ARAMW-1), 682093007 (ARK-ARAMW-2), 682093008 (ARK-ARAMW-7), 682093009 (ARK-ARAMW-8), 682093010 (ARK-ARAMW-9) and 682093012 (ARK-AP2-FD-03) were manually integrated to correctly position the baseline as set in the calibration standards.

Product: Nitrate/Nitrite Cad Redux Low Level

Analytical Method: EPA 353.2 Low Level

Analytical Procedure: GL-GC-E-128 REV# 15

Analytical Batch: 2660961

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093001	ARK-ARGWA-19
682093002	ARK-ARGWA-20
682093003	ARK-ARGWC-21
682093004	ARK-ARGWC-22
682093005	ARK-ARGWC-23
682093006	ARK-ARAMW-1
682093007	ARK-ARAMW-2
682093008	ARK-ARAMW-7
682093009	ARK-ARAMW-8
682093010	ARK-ARAMW-9
682093011	ARK-AP2-EB-03
682093012	ARK-AP2-FD-03
682093013	ARK-AP2-FB-03
1205830576	Method Blank (MB)
1205830577	Laboratory Control Sample (LCS)
1205830578	681878004(NonSDG) Sample Duplicate (DUP)
1205830579	681878004(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

The following samples 1205830578 (Non SDG 681878004DUP), 1205830579 (Non SDG 681878004PS), 682093001 (ARK-ARGWA-19) and 682093012 (ARK-AP2-FD-03) were diluted because target analyte concentrations exceeded the calibration range. The following samples 682093002 (ARK-ARGWA-20) and 682093005 (ARK-ARGWC-23) in this sample group were diluted due to matrix interference. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	682093			
	001	002	005	012
Nitrogen, Nitrate/Nitrite	5X	5X	5X	5X

Sample Re-analysis

Sample was re-analyzed due to over dilution. 682093004 (ARK-ARGWC-22).

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2663138

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093001	ARK-ARGWA-19
682093002	ARK-ARGWA-20
682093003	ARK-ARGWC-21
682093004	ARK-ARGWC-22
682093005	ARK-ARGWC-23
682093006	ARK-ARAMW-1
682093007	ARK-ARAMW-2
682093008	ARK-ARAMW-7
682093009	ARK-ARAMW-8
682093010	ARK-ARAMW-9
682093011	ARK-AP2-EB-03
682093012	ARK-AP2-FD-03
682093013	ARK-AP2-FB-03
1205835763	Method Blank (MB)
1205835764	Laboratory Control Sample (LCS)
1205835765	681869001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information**Additional Comments**

A reduced aliquot was used due to historical information. 1205835765 (Non SDG 681869001DUP), 682093008 (ARK-ARAMW-7) and 682093010 (ARK-ARAMW-9).

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 16

Analytical Batch: 2661203

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682093001	ARK-ARGWA-19
682093002	ARK-ARGWA-20
682093003	ARK-ARGWC-21
682093004	ARK-ARGWC-22
682093005	ARK-ARGWC-23
682093006	ARK-ARAMW-1
682093007	ARK-ARAMW-2
682093008	ARK-ARAMW-7
682093009	ARK-ARAMW-8
682093010	ARK-ARAMW-9
1205831115	Laboratory Control Sample (LCS)
1205831120	Laboratory Control Sample (LCS)
1205831121	Laboratory Control Sample Duplicate (LCSD)
1205831122	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Laboratory Control Sample Duplicate (LCSD)

An LCSD was used in place of matrix QC due to limited sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: <u>1</u> of <u>2</u>		Laboratories LLC <small>Chemistry Radiochemistry Radiocassay Specialty Analytics</small> Chain of Custody and Analytical Request		GEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171 Fax: (843) 766-1178	
Project # <u>175569434</u>				682093	
GEL Quote #:					
COC Number ⁽¹⁾ : <u>2</u> Sample Cooler(s): <u>5</u>					
PO Number: GPC82177-0005		GEL Work Order Number:		GEL Project Manager: <u>Alaina Pinnick</u>	
Client Name: Georgia Power		Phone # (937-344-6533)		Sample Analysis Requested ⁽⁵⁾ (Fill in the number of containers for each test)	
Project/Site Name: Plant Arkwright Ash Pond <u>2</u>		Fax: N/A			
Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308		Should this sample be considered:		Comments (task_code: ARK-CCR-ASSMT-2024S2)	
Collected By: Jackson Bankston, Zach Levy, John Myer, Dylan Quintal					
Send Results To: jabraham@southernco.com EDD@stantec.com cassidy.sutherland@stantec.com		Radioactive (if yes, please supply isotopic info.) (?) Known or possible Hazards		Total number of containers	
Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code ⁽²⁾	Field Filtered ⁽³⁾	Sample Matrix ⁽⁴⁾
ARK-ARGWA-19	08-20-24	0910	N	N	WG
ARK-ARGWA-20	08-20-24	0935	N	N	WG
ARK-ARGWC-21	08-20-24	1515	N	N	WG
ARK-ARGWC-22	08-20-24	1405	N	N	WG
ARK-ARGWC-23	08-20-24	12:50	N	N	WG
ARK-ARAMW-1	08-20-24	1315	N	N	WG
ARK-ARAMW-2	08-20-24	1145	N	N	WG
ARK-ARAMW-7	08-20-24	1305	N	N	WG
ARK-ARAMW-8	08-20-24	0935	N	N	WG
ARK-ARAMW-9	08-20-24	1150	N	N	WG
Chain of Custody Signatures					
Relinquished By (Signed) _____ Print Name _____ Date _____			Received by (signed) _____ Print Name _____ Date _____		
1. <u>[Signature]</u> Stantec <u>8/21/24</u>			2. <u>[Signature]</u> <u>8/21/24</u>		
2. _____			3. <u>[Signature]</u> <u>8/21/24</u>		
3. _____			_____		
TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: _____ Specify: _____ (Subject to Surcharge)			Fax Results: [] Yes [X] No		
Select Deliverable: [] C of A [] QC Summary [] level 1 [X] Level 2 [] Level 3 [] Level 4			Metals App. IV: Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti Alkalinity: bicarbonate as CaCO ₃ , carbonate as CaCO ₃ , total as CaCO ₃		
Additional Remarks: _____			For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: <u>0</u> °C		
> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)			Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other:		
1.) Chain of Custody Number = Client Determined 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered. 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1). 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank 7.) KNOWN OR POSSIBLE HAZARDS					
RCRA Metals As = Arsenic Hg= Mercury Ba = Barium Se= Selenium Cd = Cadmium Ag= Silver Cr = Chromium MR= Misc. RCRA metals Pb = Lead		Characteristic Hazards FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls		Listed Waste LW= Listed Waste (F,K,P and U-listed wastes.) Waste code(s): _____ Other OT= Other / Unknown (i.e.: High low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____ _____ _____	
Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.) _____ _____ _____					

SAMPLE RECEIPT & REVIEW FORM

Client: GPCC SDG/AR/COC/Work Order: _____

Received By: CLM Date Received: 8/21/24

Carrier and Tracking Number: _____

Circle Applicable: FedEx Express 3-1° FedEx Ground 5-1° UPS 9-0° Field Services 9-1° Courier 11-1° Other _____

cooler 1-0° 2-0° 4-0° 6-0° 8-1° 10-0°

Suspected Hazard Information

A) Shipped as a DOT Hazardous? ☒ Yes ☐ No *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

B) Did the client designate the samples are to be received as radioactive? ☒ Yes ☐ No Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___

C) Did the RSO classify the samples as radioactive? ☒ Yes ☐ No Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 00 CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous? ☒ Yes ☐ No COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards? ☒ Yes ☐ No If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>See above with coolers</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR5-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) <u>ARK-A RAMW-8 (2 of 3) plastic 1,000 has 8/19/24</u>
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed): 10.) wrote on samples, per COC it should be 8/20/24.

PM (or PMA) review: Initials _____ Date _____ Page _____ of _____

GL-CHL-SR-001 Rev 7

682138 682097 682084
 682142 682098 AP
 682093 682097
 WT 8/26/24

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:	
Received By: <u>CLM</u>		Date Received: <u>8/21/24</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other <u>Cooler 1-0° 3-1° 5-1° 7-0° 9-1° 11-1°</u> <u>2-0° 4-0° 6-0° 8-1° 10-0°</u>	
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes <input type="checkbox"/> No <input type="checkbox"/>	
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>00</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>See above with coolers</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR5-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) <u>ARK-A RAMW-8 (2 of 3) plastic 1,000 has 8/19/24</u>
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):
10.) wrote on samples, per COC it should be 8/20/24.

PM (or PMA) review: Initials WJ Date 8/26/24 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 05 September 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-41
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 19, 2024

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Arkwright CCR Groundwater Compliance Relog: Radiochemistry
Work Order: 682097

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 21, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The sample containers (2 of 3) for sample ID "ARK0-ARAMW-8" had a collection date of 8/19/24 while the chain of custody documents the collection date as 8/20/24682097009(ARK-ARAMW-8). The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
682097001	ARK-ARGWA-19	Ground Water	08/20/24 09:10	08/21/24 14:00
682097002	ARK-ARGWA-20	Ground Water	08/20/24 09:35	08/21/24 14:00
682097003	ARK-ARGWA-21	Ground Water	08/20/24 15:15	08/21/24 14:00
682097004	ARK-ARGWA-22	Ground Water	08/20/24 14:05	08/21/24 14:00
682097005	ARK-ARGWA-23	Ground Water	08/20/24 12:50	08/21/24 14:00
682097006	ARK-ARAMW-1	Ground Water	08/20/24 13:15	08/21/24 14:00
682097007	ARK-ARAMW-2	Ground Water	08/20/24 11:45	08/21/24 14:00
682097008	ARK-ARAMW-7	Ground Water	08/20/24 13:05	08/21/24 14:00
682097009	ARK-ARAMW-8	Ground Water	08/20/24 09:35	08/21/24 14:00
682097010	ARK-ARAMW-9	Ground Water	08/20/24 11:50	08/21/24 14:00
682097011	ARK-AP2-EB-03	Water	08/20/24 14:40	08/21/24 14:00
682097012	ARK-AP2-FD-03	Water	08/20/24 12:00	08/21/24 14:00
682097013	ARK-AP2-FB-03	Water	08/20/24 12:00	08/21/24 14:00

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.



Prep Methods and Prep Dates

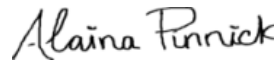
Not Applicable

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
Calculation	19-SEP-2024
EPA 903.1 Modified	18-SEP-2024
EPA 904.0/SW846 9320 Modified	17-SEP-2024

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4443.

Sincerely,

A handwritten signature in black ink that reads "Alaina Pinnick". The script is cursive and fluid, with the first name "Alaina" and last name "Pinnick" clearly distinguishable.

Alaina Pinnick
Project Manager

Purchase Order: GPC82177-0005
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 682097 GEL Work Order: 682097

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Alaina Pinnick.

Reviewed by

Alaina Pinnick

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARGWA-19
Sample ID: 682097001
Matrix: WG
Collect Date: 20-AUG-24
Receive Date: 21-AUG-24
Collector: Client

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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Rad Gas Flow Proportional Counting

GFPC Ra228, Liquid "As Received"

Radium-228	U	1.83	+/-1.31	2.06	+/-1.39	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
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Radium-226+Radium-228 Calculation "See Parent Products"

Radium-226+228 Sum		2.65	+/-1.36	2.06	+/-1.45		pCi/L		1	NXL1	09/19/24	1325	2665106	2
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Rad Radium-226

Lucas Cell, Ra226, Liquid "As Received"

Radium-226		0.815	+/-0.376	0.418	+/-0.394	1.00	pCi/L			MJ2	09/18/24	1010	2661719	3
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The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	84.9	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARGWA-20

Project: GPCC00100

Sample ID: 682097002

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.283	+/-0.817	1.50	+/-0.820	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.969	+/-0.869	1.50	+/-0.880		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.686	+/-0.296	0.274	+/-0.319	1.00	pCi/L			MJ2	09/18/24	1010	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	81.1	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARGWA-21

Project: GPCC00100

Sample ID: 682097003

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.868	+/-1.82	3.22	+/-1.84	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.02	+/-1.83	3.22	+/-1.85		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.151	+/-0.157	0.231	+/-0.161	1.00	pCi/L			MJ2	09/18/24	1010	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	52.7	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARGWA-22

Project: GPCC00100

Sample ID: 682097004

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.369	+/-0.966	1.92	+/-0.966	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.04	+/-1.03	1.92	+/-1.05		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.04	+/-0.349	0.313	+/-0.401	1.00	pCi/L			MJ2	09/18/24	1010	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	79	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARGWA-23

Project: GPCC00100

Sample ID: 682097005

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.66	+/-0.917	1.28	+/-1.01	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.10	+/-0.970	1.28	+/-1.06		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.438	+/-0.316	0.451	+/-0.326	1.00	pCi/L			MJ2	09/18/24	1010	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	87.1	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARAMW-1

Project: GPCC00100

Sample ID: 682097006

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.96	+/-1.27	1.95	+/-1.36	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.47	+/-1.30	1.95	+/-1.40		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.508	+/-0.304	0.374	+/-0.314	1.00	pCi/L			MJ2	09/18/24	1010	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	82.3	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

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Address : Company
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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARAMW-2

Project: GPCC00100

Sample ID: 682097007

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.63	+/-1.47	2.25	+/-1.62	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.98	+/-1.49	2.25	+/-1.63		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.355	+/-0.245	0.336	+/-0.251	1.00	pCi/L			MJ2	09/18/24	1044	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	84.4	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARAMW-7

Project: GPCC00100

Sample ID: 682097008

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.84	+/-1.52	2.29	+/-1.68	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.47	+/-1.54	2.29	+/-1.70		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.635	+/-0.262	0.234	+/-0.279	1.00	pCi/L			MJ2	09/18/24	1044	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	79.7	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARAMW-8

Project: GPCC00100

Sample ID: 682097009

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.657	+/-1.20	2.09	+/-1.21	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.801	+/-1.24	2.09	+/-1.25		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.144	+/-0.316	0.582	+/-0.317	1.00	pCi/L			MJ2	09/18/24	1044	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	84.7	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-ARAMW-9

Project: GPCC00100

Sample ID: 682097010

Client ID: GPCC001

Matrix: WG

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.82	+/-1.53	2.49	+/-1.60	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.80	+/-1.57	2.49	+/-1.65		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.979	+/-0.327	0.247	+/-0.378	1.00	pCi/L			MJ2	09/18/24	1044	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	74.5	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP2-EB-03
Sample ID: 682097011
Matrix: WQ
Collect Date: 20-AUG-24
Receive Date: 21-AUG-24
Collector: Client

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
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Rad Gas Flow Proportional Counting

GFPC Ra228, Liquid "As Received"

Radium-228	U	1.18	+/-1.17	1.93	+/-1.21	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
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Radium-226+Radium-228 Calculation "See Parent Products"

Radium-226+228 Sum	U	1.52	+/-1.20	1.93	+/-1.24		pCi/L		1	NXL1	09/19/24	1325	2665106	2
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Rad Radium-226

Lucas Cell, Ra226, Liquid "As Received"

Radium-226	U	0.339	+/-0.247	0.347	+/-0.252	1.00	pCi/L			MJ2	09/18/24	1044	2661719	3
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The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	71.2	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP2-FD-03

Project: GPCC00100

Sample ID: 682097012

Client ID: GPCC001

Matrix: WQ

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0196	+/-1.19	2.19	+/-1.19	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.595	+/-1.21	2.19	+/-1.22		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.595	+/-0.260	0.207	+/-0.276	1.00	pCi/L			MJ2	09/18/24	1044	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	83.2	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: September 19, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP2-FB-03

Project: GPCC00100

Sample ID: 682097013

Client ID: GPCC001

Matrix: WQ

Collect Date: 20-AUG-24

Receive Date: 21-AUG-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.487	+/-0.843	1.49	+/-0.852	3.00	pCi/L			KP1	09/17/24	1252	2661778	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.551	+/-0.870	1.49	+/-0.879		pCi/L		1	NXL1	09/19/24	1325	2665106	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.0635	+/-0.216	0.426	+/-0.216	1.00	pCi/L			MJ2	09/18/24	1044	2661719	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2661778	76.7	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 682097**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 45

Analytical Batch: 2665106

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682097001	ARK-ARGWA-19
682097002	ARK-ARGWA-20
682097003	ARK-ARGWA-21
682097004	ARK-ARGWA-22
682097005	ARK-ARGWA-23
682097006	ARK-ARAMW-1
682097007	ARK-ARAMW-2
682097008	ARK-ARAMW-7
682097009	ARK-ARAMW-8
682097010	ARK-ARAMW-9
682097011	ARK-AP2-EB-03
682097012	ARK-AP2-FD-03
682097013	ARK-AP2-FB-03

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2661778

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682097001	ARK-ARGWA-19
682097002	ARK-ARGWA-20
682097003	ARK-ARGWA-21
682097004	ARK-ARGWA-22
682097005	ARK-ARGWA-23
682097006	ARK-ARAMW-1
682097007	ARK-ARAMW-2
682097008	ARK-ARAMW-7
682097009	ARK-ARAMW-8

682097010	ARK-ARAMW-9
682097011	ARK-AP2-EB-03
682097012	ARK-AP2-FD-03
682097013	ARK-AP2-FB-03
1205832458	Method Blank (MB)
1205832459	682097001(ARK-ARGWA-19) Sample Duplicate (DUP)
1205832460	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

RDL Met

The following RDL was met with rounding.

Sample	Analyte	Value
682097003 (ARK-ARGWA-21)	Radium-228	Result 0.868 < MDA 3.22 > RDL 3 pCi/L

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2661719

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682097001	ARK-ARGWA-19
682097002	ARK-ARGWA-20
682097003	ARK-ARGWA-21
682097004	ARK-ARGWA-22
682097005	ARK-ARGWA-23
682097006	ARK-ARAMW-1
682097007	ARK-ARAMW-2
682097008	ARK-ARAMW-7
682097009	ARK-ARAMW-8
682097010	ARK-ARAMW-9
682097011	ARK-AP2-EB-03
682097012	ARK-AP2-FD-03
682097013	ARK-AP2-FB-03
1205832284	Method Blank (MB)
1205832285	682059001(NonSDG) Sample Duplicate (DUP)
1205832286	682059001(NonSDG) Matrix Spike (MS)
1205832287	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments

The matrix spike, 1205832286 (Non SDG 682059001MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Report Date: September 19, 2024
Page 1 of 2

Atlanta, Georgia
Contact: Joju Abraham
Workorder: 682097

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2661778										
QC1205832459	682097001	DUP									
Radium-228		U	1.83	U	0.527	pCi/L	0		N/A	KP1	09/17/2412:52
		Uncert:	+/-1.31		+/-1.23						
		TPU:	+/-1.39		+/-1.24						
QC1205832460	LCS										
Radium-228	70.5				55.7	pCi/L	79	(75%-125%)	KP1	09/17/2412:52	
		Uncert:			+/-4.20						
		TPU:			+/-14.9						
QC1205832458	MB										
Radium-228			U	0.570	pCi/L				KP1	09/17/2412:52	
		Uncert:		+/-0.923							
		TPU:		+/-0.934							
Rad Ra-226											
Batch	2661719										
QC1205832285	682059001	DUP									
Radium-226			1.86		1.85	pCi/L	.352	(0% - 100%)	MJ2	09/18/2411:18	
		Uncert:	+/-0.519		+/-0.524						
		TPU:	+/-0.617		+/-0.623						
QC1205832287	LCS										
Radium-226	27.1				24.1	pCi/L	88.7	(75%-125%)	MJ2	09/18/2411:18	
		Uncert:			+/-1.64						
		TPU:			+/-4.66						
QC1205832284	MB										
Radium-226			U	0.274	pCi/L				MJ2	09/18/2411:18	
		Uncert:		+/-0.231							
		TPU:		+/-0.236							
QC1205832286	682059001	MS									
Radium-226	128		1.86		121	pCi/L	93	(75%-125%)	MJ2	09/18/2411:18	
		Uncert:	+/-0.519		+/-7.58						
		TPU:	+/-0.617		+/-20.9						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 682097

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI	Gamma Spectroscopy--Uncertain identification									
BD	Results are either below the MDC or tracer recovery is low									
h	Preparation or preservation holding time was exceeded									
R	Sample results are rejected									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
N/A	RPD or %Recovery limits do not apply.									
ND	Analyte concentration is not detected above the detection limit									
M	M if above MDC and less than LLD									
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
FA	Failed analysis.									
UJ	Gamma Spectroscopy--Uncertain identification									
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.									
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.									
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.									
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.									
N1	See case narrative									
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.									
**	Analyte is a Tracer compound									
M	REMP Result > MDC/CL and < RDL									
J	See case narrative for an explanation									


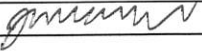

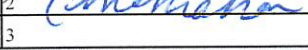
N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Page: <u>1</u> of <u>2</u> Project # <u>175569434</u> GEL Quote #: _____ COC Number ⁽¹⁾ : <u>2</u> Sample Cooler(s): <u>5</u> PO Number: GPC82177-0005		 Laboratories LLC <small>Chemistry Radiochemistry Radioassay Specialty Analytics</small> Chain of Custody and Analytical Request		GEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171 Fax: (843) 766-1178		682097													
GEL Work Order Number: _____		GEL Project Manager: <u>Alaina Pinnick</u>																	
Client Name: Georgia Power		Phone # (937-344-6533)		Sample Analysis Requested ⁽⁵⁾ (Fill in the number of containers for each test)															
Project/Site Name: Plant Arkwright Ash Pond <u>2</u>		Fax: N/A		Should this sample be considered:															
Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308		Collected By: Jackson Bankston, Zach Levy, John Myer, Dylan Quintal		Send Results To: jabraham@southernco.com EDD@stantec.com cassidy.sutherland@stantec.com		Comments (task_code: ARK-CCR-ASSMT-2024S2)													
Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code ⁽²⁾	Field Filtered ⁽³⁾	Sample Matrix ⁽⁴⁾	Radioactive (if yes, please supply isotopic info.)	(?) Known or possible Hazards	Total number of containers	Ag (App. I) (6020B)	Metals App. III (B, Ca) (6020B)	Alkalinity (300.0 R2.1) (6020B)	TDS (SM Method 2540C)	Anions (Cl, F, Sulfate) (300.0 Rev. 2.1 1993)	Metals App. IV (6020B) see Additional Remarks	RAD 226-228 Cmbd	Mercury (7470B)	Metals Al, K, Mg, Ni, Fe, Mn (6020B)	Fe2+/Mn2+ (6020B) Field Filtered	Nitrate/Nitrite (EPA Method 353.2)
ARK-ARGWA-19	08-20-24	0910	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARGWA-20	08-20-24	0935	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARGWC-21	08-20-24	1515	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARGWC-22	08-20-24	1405	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARGWC-23	08-20-24	12:50	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARAMW-1	08-20-24	1315	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARAMW-2	08-20-24	1145	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARAMW-7	08-20-24	1305	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARAMW-8	08-20-24	0935	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
ARK-ARAMW-9	08-20-24	1150	N	N	WG			8	X	X	X	X	X	X	X	X	X	X	X
Chain of Custody Signatures				TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: _____ Specify: _____ (Subject to Surcharge)															
Relinquished By (Signed)	Print Name	Date	Received by (signed)	Print Name	Date	Fax Results: [] Yes [X] No													
1 	Stanec	8/21/24	2 		8/21/24	Select Deliverable: [] C of A [] QC Summary [] Level 1 [X] Level 2 [] Level 3 [] Level 4													
2			3 		8/21/24	Additional Remarks: Metals App. IV: Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti Alkalinity: bicarbonate as CaCO3, carbonate as CaCO3, total as CaCO3													
3						For Lab Receiving Use Only: Custody Seal Intact? [] Yes [] No Cooler Temp: <u>1</u> °C													
> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)						Sample Collection Time Zone: [X] Eastern [] Pacific [] Central [] Mountain [] Other.													
1.) Chain of Custody Number = Client Determined 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered. 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1). 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank																			
7.) KNOWN OR POSSIBLE HAZARDS			Characteristic Hazards		Listed Waste		Other												
RCRA Metals As = Arsenic Hg = Mercury Ba = Barium Se = Selenium Cd = Cadmium Ag = Silver Cr = Chromium MR = Misc. RCRA metals Pb = Lead			FL = Flammable/Ignitable CO = Corrosive RE = Reactive		LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):		OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:												
			TSCA Regulated																
			PCB = Polychlorinated biphenyls																
Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)																			

682138

682097

682084

682142

682098

AP

682093

682097

w/ 8/26/24



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPEC</u>		SDG/AR/COC/Work Order:	
Received By: <u>CLM</u>		Date Received: <u>8/21/24</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other <u>cooler 1-0° 3-1° 5-1° 7-0° 9-1° 11-1°</u> <u>2-0° 4-0° 6-0° 8-1° 10-0°</u>	
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____
Sample Receipt Criteria		Yes	NA
1 Shipping containers received intact and sealed?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 Chain of custody documents included with shipment?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4 Daily check performed and passed on IR temperature gun?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 Sample containers intact and sealed?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7 Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8 Samples received within holding time?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 Sample ID's on COC match ID's on bottles?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10 Date & time on COC match date & time on bottles?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11 Number of containers received match number indicated on COC?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12 Are sample containers identifiable as GEL provided by use of GEL labels?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
13 COC form is properly signed in relinquished/received sections?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Comments (Use Continuation Form if needed): <u>10.) wrote on samples, per COC it should be 8/20/24.</u> <u>ARK-A RAMW-8 (2 of 3) plastic 1,000 has 8/19/24</u>			

PM (or PMA) review: Initials

WJ

Date

8/26/24

Page

1 of 1

GL-CHL-SR-001 Rev 7

Re: Collection Date - GEL WO: 682097

Will James <Will.James@gel.com>

Tue 8/27/2024 9:40 AM

To: Smith, Edgar <Edgar.SmithII@stantec.com>; Joju Abraham <jabraham@southernco.com>; Sutherland, Cassidy <Cassidy.Sutherland@stantec.com>; Lieu, Carole <Carole.Lieu@stantec.com>; calli.provenza@stantec.com <calli.provenza@stantec.com>; Ross, Katie <katie.ross@stantec.com>; KNJURINK@SOUTHERNCO.COM <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; NSMUSKUS@SOUTHERNCO.COM <NSMUSKUS@SOUTHERNCO.COM>; lbmidkif@southernco.com <lbmidkif@southernco.com>
Cc: Team Pinnick <Team.Pinnick@gel.com>; Shoredits, Andreas <Andreas.Shoredits@stantec.com>

Thank you for the confirmation.

Thank you,

Will James

Project Manager Assistant



2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417
Office Direct: 843.769.7371 Ext. 4261 | Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: Will.James@gel.com | Website: www.gel.com

Analytical Testing



From: Smith, Edgar <Edgar.SmithII@stantec.com>

Sent: Tuesday, August 27, 2024 9:33 AM

To: Will James <Will.James@gel.com>; Joju Abraham <jabraham@southernco.com>; Sutherland, Cassidy <Cassidy.Sutherland@stantec.com>; Lieu, Carole <Carole.Lieu@stantec.com>; calli.provenza@stantec.com <calli.provenza@stantec.com>; Ross, Katie <katie.ross@stantec.com>; KNJURINK@SOUTHERNCO.COM <KNJURINK@SOUTHERNCO.COM>; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; NSMUSKUS@SOUTHERNCO.COM <NSMUSKUS@SOUTHERNCO.COM>; lbmidkif@southernco.com <lbmidkif@southernco.com>

Cc: Team Pinnick <Team.Pinnick@gel.com>; Shoredits, Andreas <Andreas.Shoredits@stantec.com>

Subject: RE: Collection Date - GEL WO: 682097

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Will,

I checked the field documents and the Low-Flow report indicates that the well reached stabilization at 09:29 and was sampled at 09:35 on 8/20/24. Based on all that it looks like the correct date is 8/20/24.

Regards,
Edgar

Edgar L. Smith, II PG

Senior Associate, Geologic Group Leader

Direct: 770 656 2676

Mobile: 770 656 2676

edgar.smithii@stantec.com

Stantec
10745 Westside Way Suite 250
Alpharetta GA 30009-7640



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Please consider the environment before printing this email.

From: Will James <Will.James@gel.com>
Sent: Monday, August 26, 2024 3:52 PM
To: Joju Abraham <jabraham@southernco.com>; Sutherland, Cassidy <Cassidy.Sutherland@stantec.com>; Smith, Edgar <Edgar.SmithII@stantec.com>; Lieu, Carole <Carole.Lieu@stantec.com>; calli.provenza@stantec.com; Ross, Katie <katie.ross@stantec.com>; KNJURINK@SOUTHERNCO.COM; Smilley, Michael Jay <MJSMILLE@SOUTHERNCO.COM>; NSMUSKUS@SOUTHERNCO.COM; lbmidkif@southernco.com
Cc: Team Pinnick <Team.Pinnick@gel.com>
Subject: Collection Date - GEL WO: 682097

Some people who received this message don't often get email from will.james@gel.com. [Learn why this is important](#)

Good morning,

The sample containers (2 of 3) for sample ID "ARK0-ARAMW-8" had a collection date of 8/19/24 while the chain of custody documents the collection date as 8/20/24. Please advise. Please see attached for reference.

Thank you,
Will James
Project Manager Assistant



2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417
Office Direct: 843.769.7371 Ext. 4261 | Office Main: 843.556.8171 | Fax: 843.766.1178
E-Mail: Will.James@gel.com | Website: www.gel.com

Analytical Testing



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mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by The GEL Group, Inc. and its affiliates.

Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

List of current GEL Certifications as of 19 September 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-41
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 05, 2024

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Arkwright CCR Groundwater Compliance 175569434
Work Order: 682098

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 21, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
682098001	ARK-ARGWA-19	Ground Water	08/20/24 09:10	08/21/24 14:00
682098002	ARK-ARGWA-20	Ground Water	08/20/24 09:35	08/21/24 14:00
682098003	ARK-ARGWC-21	Ground Water	08/20/24 15:15	08/21/24 14:00
682098004	ARK-ARGWC-22	Ground Water	08/20/24 14:05	08/21/24 14:00
682098005	ARK-ARGWC-23	Ground Water	08/20/24 12:50	08/21/24 14:00
682098006	ARK-ARAMW-1	Ground Water	08/20/24 13:15	08/21/24 14:00
682098007	ARK-ARAMW-2	Ground Water	08/20/24 11:45	08/21/24 14:00
682098008	ARK-ARAMW-7	Ground Water	08/20/24 13:05	08/21/24 14:00
682098009	ARK-ARAMW-8	Ground Water	08/20/24 09:35	08/21/24 14:00
682098010	ARK-ARAMW-9	Ground Water	08/20/24 11:50	08/21/24 14:00

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	27-AUG-2024

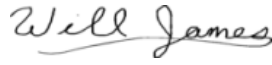


Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A/6020B	01-SEP-2024
SW846 3005A/6020B	31-AUG-2024

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4443.

Sincerely,

A handwritten signature in cursive script that reads "Will James".

Will James for
Alaina Pinnick
Project Manager

Purchase Order: GPC82177-0005
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 682098 GEL Work Order: 682098

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Alaina Pinnick.

Reviewed by

Will James

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWA-19 Project: GPCC00100
Sample ID: 682098001 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 09:10
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2051	2661564	1
Manganese	U	ND	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWA-20 Project: GPCC00100
Sample ID: 682098002 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 09:35
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2056	2661564	1
Manganese	J	0.00164	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-21 Project: GPCC00100
Sample ID: 682098003 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 15:15
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron		0.483	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2102	2661564	1
Manganese		0.307	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-22 Project: GPCC00100
Sample ID: 682098004 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 14:05
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron		6.31	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2108	2661564	1
Manganese		18.0	0.100	0.500	mg/L	1.00	100	BAJ	09/01/24	1214	2661564	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARGWC-23 Project: GPCC00100
Sample ID: 682098005 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 12:50
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2119	2661564	1
Manganese		0.239	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-1 Project: GPCC00100
Sample ID: 682098006 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 13:15
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron	J	0.0961	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2125	2661564	1
Manganese		0.131	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-2 Project: GPCC00100
Sample ID: 682098007 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 11:45
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron		1.83	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2130	2661564	1
Manganese		0.348	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-7 Project: GPCC00100
Sample ID: 682098008 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 13:05
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Manganese		14.9	0.100	0.500	mg/L	1.00	100	BAJ	09/01/24	1216	2661564	1
Iron		4.98	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2142	2661564	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-8 Project: GPCC00100
Sample ID: 682098009 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 09:35
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron	U	ND	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2147	2661564	1
Manganese		0.187	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 5, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Joju Abraham
Project: Arkwright CCR Groundwater Compliance175569434

Client Sample ID: ARK-ARAMW-9 Project: GPCC00100
Sample ID: 682098010 Client ID: GPCC001
Matrix: WG
Collect Date: 20-AUG-24 11:50
Receive Date: 21-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron		0.428	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	2153	2661564	1
Manganese		0.136	0.00100	0.00500	mg/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/27/24	0805	2661562

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 5, 2024

Page 1 of 2

Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia
Contact: Joju Abraham

Workorder: 682098

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661564										
QC1205831936	LCS										
Iron	2.00			1.98	mg/L		98.9	(80%-120%)	BAJ	08/31/24	19:40
Manganese	0.0500			0.0481	mg/L		96.2	(80%-120%)			
QC1205831935	MB										
Iron			U	ND	mg/L					08/31/24	19:37
Manganese			U	ND	mg/L						
QC1205831937	682065001	MS									
Iron	2.00	19.3		20.5	mg/L		N/A	(75%-125%)		08/31/24	19:51
Manganese	0.0500	0.194		0.236	mg/L		83.7	(75%-125%)			
QC1205831938	682065001	MSD									
Iron	2.00	19.3		20.8	mg/L	1.34	N/A	(0%-20%)		08/31/24	19:54
Manganese	0.0500	0.194		0.238	mg/L	1.13	89.1	(0%-20%)			
QC1205831939	682065001	SDILT									
Iron		19300		4190	ug/L	8.92		(0%-20%)		08/31/24	20:00
Manganese		194		41.8	ug/L	7.69		(0%-20%)			

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 682098

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
N	Metals--The Matrix spike sample recovery is not within specified control limits										
H	Analytical holding time was exceeded										
<	Result is less than value reported										
>	Result is greater than value reported										
h	Preparation or preservation holding time was exceeded										
R	Sample results are rejected										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
N1	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
J	See case narrative for an explanation										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Metals
Technical Case Narrative
Georgia Power Company
SDG #: 682098

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2661564

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 15

Preparation Batch: 2661562

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682098001	ARK-ARGWA-19
682098002	ARK-ARGWA-20
682098003	ARK-ARGWC-21
682098004	ARK-ARGWC-22
682098005	ARK-ARGWC-23
682098006	ARK-ARAMW-1
682098007	ARK-ARAMW-2
682098008	ARK-ARAMW-7
682098009	ARK-ARAMW-8
682098010	ARK-ARAMW-9
1205831935	Method Blank (MB)ICP-MS
1205831936	Laboratory Control Sample (LCS)
1205831939	682065001(NonSDGL) Serial Dilution (SD)
1205831937	682065001(NonSDGS) Matrix Spike (MS)
1205831938	682065001(NonSDGSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 682098004 (ARK-ARGWC-22) and 682098008 (ARK-ARAMW-7) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	682098	
	004	008
Manganese	100X	100X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: _____ of _____		Laboratories LLC <small>Chemistry Radiochemistry Radioassay Specialty Analytics</small>		GEL Laboratories, LLC	
Project # 175569434				2040 Savage Road	
GEL Quote #:				Charleston, SC 29407	
COC Number (1): 3 Sample Cooler(s): 5				Phone: (843) 556-8171	
PO Number: GPC82177-0005		GEL Work Order Number:		GEL Project Manager: Alaina Pinnick	
Client Name: Georgia Power		Phone # (937-344-6533)		Sample Analysis Requested (5) (Fill in the number of containers for each test)	
Project/Site Name: Plant Arkwright Ash Pond _2_		Fax: N/A		<div style="display: flex; justify-content: space-between;"> <div> Should this sample be considered: Radioactive (if yes, please supply isotopic info) _____ (7) Known or possible Hazards _____ </div> <div> Total number of containers _____ Ag (App. 1) (6020B) _____ Metals App. III (B, Ca) (6020B) _____ Alkalinity (300.0 R2.1) see Additional Remarks _____ TDS (SM Method 2540C) _____ Anions (Cl, F, Sulfate) (300.0 Rev. 2.1 1993) _____ Metals App. IV (6020B) see Additional Remarks _____ RAD 226-228 Cmbd _____ Mercury (7470B) _____ Metals Al, K, Mg, Na, Fe, Mn (6020B) _____ Fe2+/Mn2+ (6020B) Field Filtered _____ Nitrate/ Nitrite (EPA Method 353.2) _____ </div> <div> <-- Preservative Type (6) _____ Comments (task_code: ARK-CCR-ASSMT-2024S2) </div> </div>	
Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308					
Collected By: Jackson Bankston, Zach Levy, John Myer, Dylan Quintal		Send Results To: jabraham@southernco.com EDD@stantec.com cassidy.sutherland@stantec.com			
Sample ID <small>* For composites - indicate start and stop date/time</small>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)
ARK-ARGWA-19	08-20-24	0910	N	Y	WG
ARK-ARGWA-20	08-20-24	0935	N	Y	WG
ARK-ARGWC-21	08-20-24	1515	N	Y	WG
ARK-ARGWC-22	08-20-24	1405	N	Y	WG
ARK-ARGWC-23	08-20-24	12:50	N	Y	WG
ARK-ARAMW-1	08-20-24	1315	N	Y	WG
ARK-ARAMW-2	08-20-24	1145	N	Y	WG
ARK-ARAMW-7	08-20-24	1305	N	Y	WG
ARK-ARAMW-8	08-20-24	0935	N	Y	WG
ARK-ARAMW-9	08-20-24	1150	N	Y	WG
Chain of Custody Signatures			TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: _____ Specify: _____ (Subject to Surcharge)		
Relinquished By (Signed)	Print Name	Date	Received by (signed)	Print Name	Date
	Stantec	8/21/24		8/21/24	
			Fax Results: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
			Select Deliverable: <input type="checkbox"/> C of A <input type="checkbox"/> QC Summary <input type="checkbox"/> Level 1 <input checked="" type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4		
			Additional Remarks: Metals App. IV: Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti Alkalinity: bicarbonate as CaCO3, carbonate as CaCO3, total as CaCO3		
			For Lab Receiving Use Only: Custody Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: 0 °C		
> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)			Sample Collection Time Zone: <input checked="" type="checkbox"/> Eastern <input type="checkbox"/> Pacific <input type="checkbox"/> Central <input type="checkbox"/> Mountain <input type="checkbox"/> Other:		
1.) Chain of Custody Number = Client Determined 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered. 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B 7470A - 1). 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank					
7.) KNOWN OR POSSIBLE HAZARDS		Characteristic Hazards	Listed Waste	Other	
RCRA Metals As = Arsenic Hg= Mercury Ba = Barium Se= Selenium Cd = Cadmium Ag= Silver Cr = Chromium MR= Misc. RCRA metals Pb = Lead		FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW= Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT= Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____ _____ _____	
		TSCA Regulated			
		PCB = Polychlorinated biphenyls			
Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)					

682138 682097 682084
682142 682098 AP
682093 682097
WT 8/26/24

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:	
Received By: <u>CLM</u>		Date Received: <u>8/21/24</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other <u>Cooler</u> 1-0° 3-1° 5-1° 7-0° 9-1° 11-1° 2-0° 4-0° 6-0° 8-1° 10-0°	
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0.0</u> cpm/mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If D or E is yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____
Sample Receipt Criteria		Yes	NA
1 Shipping containers received intact and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Chain of custody documents included with shipment?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Daily check performed and passed on IR temperature gun?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Sample containers intact and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7 Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 Samples received within holding time?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9 Sample ID's on COC match ID's on bottles?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10 Date & time on COC match date & time on bottles?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11 Number of containers received match number indicated on COC?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12 Are sample containers identifiable as GEL provided by use of GEL labels?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13 COC form is properly signed in relinquished/received sections?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments (Use Continuation Form if needed): <u>10.) wrote on samples, per COC it should be 8/20/24.</u>			

PM (or PMA) review: Initials WJ Date 8/26/24 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 05 September 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-41
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 06, 2024

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Arkwright CCR Groundwater Compliance
Work Order: 682327

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 22, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
682327001	ARK-STN-TW22	Ground Water	08/21/24 08:45	08/22/24 15:00

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	26-AUG-2024
SW846 7470A Prep	23-AUG-2024

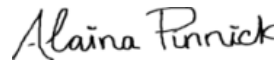
Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	24-AUG-2024
EPA 353.2 Low Level	23-AUG-2024
SM 2320B	22-AUG-2024
SM 2540C	28-AUG-2024
SW846 3005A/6020B	01-SEP-2024
SW846 3005A/6020B	31-AUG-2024
SW846 7470A	26-AUG-2024



Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4443.

Sincerely,

A handwritten signature in black ink that reads "Alaina Pinnick". The script is cursive and fluid, with the first name "Alaina" and last name "Pinnick" clearly distinguishable.

Alaina Pinnick
Project Manager

Purchase Order: GPC82177-0005
Chain of Custody: 6
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 682327 GEL Work Order: 682327

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Alaina Pinnick.

Reviewed by

Alaina Pinnick

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance

Client Sample ID: ARK-STN-TW22 Project: GPCC00100
Sample ID: 682327001 Client ID: GPCC001
Matrix: WG
Collect Date: 21-AUG-24 08:45
Receive Date: 22-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		693	13.3	40.0	mg/L		100	CWW	08/24/24	2004	2661838	1
Chloride		6.29	0.0670	0.200	mg/L		1	CWW	08/24/24	0354	2661838	2
Fluoride		0.399	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/26/24	1331	2661692	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Lithium		0.144	0.00300	0.0100	mg/L	1.00	1	BAJ	09/01/24	1254	2661587	4
Potassium		49.6	0.400	1.50	mg/L	1.00	5	BAJ	08/31/24	1708	2661587	5
Aluminum		0.0742	0.0193	0.0500	mg/L	1.00	1	BAJ	08/31/24	1705	2661587	6
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1					
Arsenic		0.482	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0501	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00381	0.000300	0.00100	mg/L	1.00	1					
Iron		31.2	0.0330	0.100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Magnesium		24.2	0.0100	0.0300	mg/L	1.00	1					
Molybdenum		0.00322	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		18.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		2.99	0.130	0.375	mg/L	1.00	25	BAJ	09/01/24	1239	2661587	7
Calcium		311	2.00	5.00	mg/L	1.00	25					
Manganese		7.13	0.0250	0.125	mg/L	1.00	25					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	PRB	09/01/24	1532	2661587	8
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.264	0.00700	0.0200	mg/L		1	JLD1	08/23/24	1108	2661630	9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Arkwright CCR Groundwater Compliance

Client Sample ID: ARK-STN-TW22
Sample ID: 682327001

Project: GPCC00100
Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1270	2.38	10.0	mg/L			KLP1	08/28/24	1338	2663921	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		262	0.725	2.00	mg/L			JW2	08/22/24	1650	2661505	11
Bicarbonate alkalinity (CaCO ₃)		262	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/26/24	0820	2661586
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/23/24	1030	2661691

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	EPA 353.2 Low Level	
10	SM 2540C	
11	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 6, 2024

Page 1 of 12

Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 682327

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2661838										
QC1205832620	682084001	DUP									
Chloride		1.80		1.81	mg/L	0.725		(0%-20%)	CWW	08/23/24	13:35
Fluoride		0.333		0.329	mg/L	1.21	^	(+/-0.100)			
Sulfate		55.2		54.9	mg/L	0.497		(0%-20%)		08/24/24	05:30
QC1205832622	682084011	DUP									
Chloride		9.67		9.69	mg/L	0.146		(0%-20%)		08/23/24	21:00
Fluoride		0.464		0.472	mg/L	1.71	^	(+/-0.100)			
Sulfate		253		254	mg/L	0.506		(0%-20%)		08/24/24	17:57
QC1205832619	LCS										
Chloride	5.00			5.18	mg/L		104	(90%-110%)		08/23/24	12:31
Fluoride	2.50			2.57	mg/L		103	(90%-110%)			
Sulfate	10.0			10.5	mg/L		105	(90%-110%)		08/29/24	15:47
QC1205832618	MB										
Chloride			U	ND	mg/L					08/23/24	11:59
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L					08/29/24	15:15

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 682327

Page 2 of 12

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2661838										
QC1205832621 682084001 PS Chloride	5.00	1.80		7.03	mg/L		105	(90%-110%)	CWW	08/23/24	14:06
Fluoride	2.50	0.333		3.02	mg/L		107	(90%-110%)			
Sulfate	10.0	11.0		21.7	mg/L		106	(90%-110%)		08/24/24	06:02
QC1205832623 682084011 PS Chloride											
Chloride	5.00	9.67		15.7	mg/L		120*	(90%-110%)		08/23/24	21:32
Fluoride	2.50	0.464		3.10	mg/L		106	(90%-110%)			
Sulfate	10.0	10.1		20.7	mg/L		106	(90%-110%)		08/24/24	18:29
Metals Analysis - ICPMS											
Batch	2661587										
QC1205832001 LCS Aluminum	2.00			2.19	mg/L		109	(80%-120%)	BAJ	08/31/24	16:15
Antimony	0.0500			0.0496	mg/L		99.1	(80%-120%)			
Arsenic	0.0500			0.0516	mg/L		103	(80%-120%)			
Barium	0.0500			0.0511	mg/L		102	(80%-120%)			
Beryllium	0.0500			0.0527	mg/L		105	(80%-120%)	PRB	09/01/24	15:20
Boron	0.100			0.117	mg/L		117	(80%-120%)	BAJ	09/01/24	12:24
Cadmium	0.0500			0.0505	mg/L		101	(80%-120%)		08/31/24	16:15

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661587										
Calcium	2.00			2.13	mg/L		106	(80%-120%)	BAJ	09/01/24	12:24
Chromium	0.0500			0.0497	mg/L		99.4	(80%-120%)		08/31/24	16:15
Cobalt	0.0500			0.0499	mg/L		99.7	(80%-120%)			
Iron	2.00			2.02	mg/L		101	(80%-120%)			
Lead	0.0500			0.0519	mg/L		104	(80%-120%)			
Lithium	0.0500			0.0567	mg/L		113	(80%-120%)		09/01/24	12:24
Magnesium	2.00			2.26	mg/L		113	(80%-120%)		08/31/24	16:15
Manganese	0.0500			0.0487	mg/L		97.3	(80%-120%)		09/01/24	12:24
Molybdenum	0.0500			0.0521	mg/L		104	(80%-120%)		08/31/24	16:15
Potassium	2.00			2.12	mg/L		106	(80%-120%)			
Selenium	0.0500			0.0505	mg/L		101	(80%-120%)			
Silver	0.0500			0.0525	mg/L		105	(80%-120%)			
Sodium	2.00			2.23	mg/L		112	(80%-120%)			
Thallium	0.0500			0.0497	mg/L		99.4	(80%-120%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661587										
QC1205832000	MB										
Aluminum			U	ND	mg/L				BAJ	08/31/24	16:12
Antimony			U	ND	mg/L						
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L				PRB	09/01/24	15:18
Boron			U	ND	mg/L				BAJ	09/01/24	12:23
Cadmium			U	ND	mg/L					08/31/24	16:12
Calcium			U	ND	mg/L					09/01/24	12:23
Chromium			U	ND	mg/L					08/31/24	16:12
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L					09/01/24	12:23
Magnesium			U	ND	mg/L					08/31/24	16:12

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661587										
Manganese			U	ND	mg/L				BAJ	09/01/24	12:23
Molybdenum			U	ND	mg/L					08/31/24	16:12
Potassium			U	ND	mg/L						
Selenium			U	ND	mg/L						
Silver			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205832002 682324001 MS											
Aluminum	2.00	U	ND	2.07	mg/L		103	(75%-125%)		08/31/24	16:26
Antimony	0.0500	U	ND	0.0507	mg/L		101	(75%-125%)			
Arsenic	0.0500	U	ND	0.0524	mg/L		103	(75%-125%)			
Barium	0.0500		0.0563	0.105	mg/L		96.5	(75%-125%)			
Beryllium	0.0500	U	ND	0.0539	mg/L		108	(75%-125%)	PRB	09/01/24	15:24
Boron	0.100		0.0311	0.137	mg/L		106	(75%-125%)	BAJ	09/01/24	12:27
Cadmium	0.0500	U	ND	0.0501	mg/L		100	(75%-125%)		08/31/24	16:26

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2661587											
Calcium	2.00		45.3		46.8	mg/L		N/A	(75%-125%)	BAJ	09/01/24	12:27
Chromium	0.0500	U	ND		0.0503	mg/L		99.2	(75%-125%)		08/31/24	16:26
Cobalt	0.0500	U	ND		0.0486	mg/L		97.3	(75%-125%)			
Iron	2.00	U	ND		1.95	mg/L		97.2	(75%-125%)			
Lead	0.0500	U	ND		0.0487	mg/L		97.4	(75%-125%)			
Lithium	0.0500	J	0.00312		0.0572	mg/L		108	(75%-125%)		09/01/24	12:27
Magnesium	2.00		8.55		10.6	mg/L		N/A	(75%-125%)		08/31/24	16:26
Manganese	0.0500	U	ND		0.0491	mg/L		96.5	(75%-125%)		09/01/24	12:27
Molybdenum	0.0500	J	0.000727		0.0541	mg/L		107	(75%-125%)		08/31/24	16:26
Potassium	2.00		2.99		5.01	mg/L		101	(75%-125%)			
Selenium	0.0500	U	ND		0.0504	mg/L		100	(75%-125%)			
Silver	0.0500	U	ND		0.0496	mg/L		99.2	(75%-125%)			
Sodium	2.00		56.0		58.4	mg/L		N/A	(75%-125%)		08/31/24	16:40
Thallium	0.0500	U	ND		0.0472	mg/L		94.5	(75%-125%)		08/31/24	16:26

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2661587											
QC1205832003	682324001	MSD										
Aluminum	2.00	U	ND		2.08	mg/L	0.83	104	(0%-20%)	BAJ	08/31/24	16:29
Antimony	0.0500	U	ND		0.0497	mg/L	1.9	99.3	(0%-20%)			
Arsenic	0.0500	U	ND		0.0516	mg/L	1.49	102	(0%-20%)			
Barium	0.0500		0.0563		0.104	mg/L	0.211	96	(0%-20%)			
Beryllium	0.0500	U	ND		0.0543	mg/L	0.732	109	(0%-20%)	PRB	09/01/24	15:26
Boron	0.100		0.0311		0.136	mg/L	0.562	105	(0%-20%)	BAJ	09/01/24	12:28
Cadmium	0.0500	U	ND		0.0496	mg/L	1.02	99.1	(0%-20%)		08/31/24	16:29
Calcium	2.00		45.3		46.9	mg/L	0.181	N/A	(0%-20%)		09/01/24	12:28
Chromium	0.0500	U	ND		0.0498	mg/L	0.833	98.3	(0%-20%)		08/31/24	16:29
Cobalt	0.0500	U	ND		0.0485	mg/L	0.226	97.1	(0%-20%)			
Iron	2.00	U	ND		1.95	mg/L	0.419	96.8	(0%-20%)			
Lead	0.0500	U	ND		0.0483	mg/L	0.791	96.6	(0%-20%)			
Lithium	0.0500	J	0.00312		0.0551	mg/L	3.83	104	(0%-20%)		09/01/24	12:28
Magnesium	2.00		8.55		10.7	mg/L	0.637	N/A	(0%-20%)		08/31/24	16:29

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661587										
Manganese	0.0500	U	ND	0.0494	mg/L	0.586	97.1	(0%-20%)	BAJ	09/01/24	12:28
Molybdenum	0.0500	J	0.000727	0.0539	mg/L	0.369	106	(0%-20%)		08/31/24	16:29
Potassium	2.00		2.99	5.05	mg/L	0.73	103	(0%-20%)			
Selenium	0.0500	U	ND	0.0503	mg/L	0.157	99.8	(0%-20%)			
Silver	0.0500	U	ND	0.0498	mg/L	0.475	99.7	(0%-20%)			
Sodium	2.00		56.0	58.5	mg/L	0.131	N/A	(0%-20%)		08/31/24	16:43
Thallium	0.0500	U	ND	0.0465	mg/L	1.7	92.9	(0%-20%)		08/31/24	16:29
QC1205832004	682324001	SDILT									
Aluminum		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/24	16:35
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			56.3	11.4	ug/L	.925		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)	PRB	09/01/24	15:30
Boron			31.1	J	8.22	ug/L	32.3	(0%-20%)	BAJ	09/01/24	12:30
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/24	16:35

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661587										
Calcium		45300		9090	ug/L	.308		(0%-20%)	BAJ	09/01/24	12:30
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/24	16:35
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Iron	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	J	3.12	U	ND	ug/L	N/A		(0%-20%)		09/01/24	12:30
Magnesium		8550		1750	ug/L	2.51		(0%-20%)		08/31/24	16:35
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/01/24	12:30
Molybdenum	J	0.727	U	ND	ug/L	N/A		(0%-20%)		08/31/24	16:35
Potassium		2990		601	ug/L	.492		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		11200		2380	ug/L	6.14		(0%-20%)		08/31/24	16:49
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/31/24	16:35

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2661692										
QC1205832230	682203002	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	08/26/24	13:19
QC1205832229	LCS										
Mercury	0.00200				0.00192	mg/L	96	(80%-120%)		08/26/24	13:16
QC1205832228	MB										
Mercury			U		ND	mg/L				08/26/24	13:14
QC1205832231	682203002	MS									
Mercury	0.00200	U	ND		0.00194	mg/L	97	(75%-125%)		08/26/24	13:21
QC1205832232	682203002	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/26/24	13:22
Nutrient Analysis											
Batch	2661630										
QC1205832110	682321001	DUP									
Nitrogen, Nitrate/Nitrite			1.97		1.97	mg/L	0	(0%-20%)	JLD1	08/23/24	10:47
QC1205832109	LCS										
Nitrogen, Nitrate/Nitrite	1.00				0.998	mg/L	99.8	(90%-110%)		08/23/24	10:44
QC1205832108	MB										
Nitrogen, Nitrate/Nitrite			U		ND	mg/L				08/23/24	10:43
QC1205832111	682321001	PS									
Nitrogen, Nitrate/Nitrite	1.00		0.394		1.41	mg/L	101	(90%-110%)		08/23/24	10:49
Solids Analysis											
Batch	2663921										
QC1205837525	682330010	DUP									
Total Dissolved Solids			239		237	mg/L	0.84	(0%-5%)	KLP1	08/28/24	13:38

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch	2663921										
QC1205837524	LCS										
Total Dissolved Solids	300			293	mg/L		97.7	(95%-105%)	KLP1	08/28/24	13:38
QC1205837523	MB										
Total Dissolved Solids			U	ND	mg/L					08/28/24	13:38
Titration and Ion Analysis											
Batch	2661505										
QC1205831761	LCS										
Alkalinity, Total as CaCO3	50.0			53.8	mg/L		108	(90%-110%)	JW2	08/22/24	16:44
QC1205831762	LCS										
Alkalinity, Total as CaCO3	15.0			15.0	mg/L		100	(90%-110%)		08/22/24	16:46
QC1205831763	LCSD										
Alkalinity, Total as CaCO3	50.0			53.4	mg/L	0.746	107	(0%-20%)		08/22/24	16:45
QC1205831764	LCSD										
Alkalinity, Total as CaCO3	15.0			15.4	mg/L	2.63	103	(0%-20%)		08/22/24	16:47

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
N1	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
R	Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.										
B	The target analyte was detected in the associated blank.										
e	5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes										
J	See case narrative for an explanation										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative
Georgia Power Company
SDG #: 682327**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2661587

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 15

Preparation Batch: 2661586

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682327001	ARK-STN-TW22
1205832000	Method Blank (MB)ICP-MS
1205832001	Laboratory Control Sample (LCS)
1205832004	682324001(ARK-ARGWA-14L) Serial Dilution (SD)
1205832002	682324001(ARK-ARGWA-14S) Matrix Spike (MS)
1205832003	682324001(ARK-ARGWA-14SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 682327001 (ARK-STN-TW22) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	682327
	001
Boron	25X
Calcium	25X
Manganese	25X
Potassium	5X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 40

Analytical Batch: 2661692

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 40

Preparation Batch: 2661691

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682327001	ARK-STN-TW22
1205832228	Method Blank (MB)CVAA
1205832229	Laboratory Control Sample (LCS)
1205832232	682203002(NonSDGL) Serial Dilution (SD)
1205832230	682203002(NonSDGD) Sample Duplicate (DUP)
1205832231	682203002(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 35

Analytical Batch: 2661838

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682327001	ARK-STN-TW22
1205832618	Method Blank (MB)
1205832619	Laboratory Control Sample (LCS)
1205832620	682084001(ARK-APIGWA-1) Sample Duplicate (DUP)
1205832621	682084001(ARK-APIGWA-1) Post Spike (PS)
1205832622	682084011(ARK-APIPZ-10) Sample Duplicate (DUP)
1205832623	682084011(ARK-APIPZ-10) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the

following exceptions.

Quality Control (QC) Information

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205832623 (ARK-APIPZ-10PS)	120* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205832620 (ARK-APIGWA-1DUP), 1205832621 (ARK-APIGWA-1PS), 1205832622 (ARK-APIPZ-10DUP), 1205832623 (ARK-APIPZ-10PS) and 682327001 (ARK-STN-TW22) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	682327
	001
Sulfate	100X

Sample Re-analysis

Sample was re-analyzed due to high CVH failure. The reanalysis data with passing instrument QC was reported. 1205832618 (MB) and 1205832619 (LCS).

Miscellaneous Information

Manual Integrations

Samples were manually integrated to correctly position the baseline as set in the calibration standards for the analyte, Fluoride. 1205832620 (ARK-APIGWA-1DUP), 1205832621 (ARK-APIGWA-1PS), 1205832622 (ARK-APIPZ-10DUP) and 1205832623 (ARK-APIPZ-10PS).

Product: Nitrate/Nitrite Cad Redux Low Level

Analytical Method: EPA 353.2 Low Level

Analytical Procedure: GL-GC-E-128 REV# 15

Analytical Batch: 2661630

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682327001	ARK-STN-TW22
1205832108	Method Blank (MB)
1205832109	Laboratory Control Sample (LCS)
1205832110	682321001(NonSDG) Sample Duplicate (DUP)
1205832111	682321001(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information**Sample Dilutions**

The following samples 1205832110 (Non SDG 682321001DUP) and 1205832111 (Non SDG 682321001PS) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 21

Analytical Batch: 2663921

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682327001	ARK-STN-TW22
1205837523	Method Blank (MB)
1205837524	Laboratory Control Sample (LCS)
1205837525	682330010(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 16

Analytical Batch: 2661505

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682327001	ARK-STN-TW22
1205831761	Laboratory Control Sample (LCS)
1205831762	Laboratory Control Sample (LCS)
1205831763	Laboratory Control Sample Duplicate (LCSD)
1205831764	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information**Laboratory Control Sample Duplicate (LCSD)**

An LCSD was used in place of matrix QC due to limited sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

SAMPLE RECEIPT & REVIEW FORM

682327

Client: GPCC		SDG/AR/COC/Work Order:	
Received By: QG		Date Received: 8/22/24	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</u>	
		n/a	
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If D or E is yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: _____ *all temperatures are recorded in Celsius TEMP: _____
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____ If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

cooler 1- 0% 6- 0%
2- 0% 7- 1%
3- 1% 8- 0%
4- 0%
5- 0%

List of current GEL Certifications as of 06 September 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-41
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

September 06, 2024

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Arkwright CCR Groundwater Compliance
Work Order: 682328

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 22, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
682328001	ARK-STN-TW22	Ground Water	08/21/24 08:45	08/22/24 15:00

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	26-AUG-2024

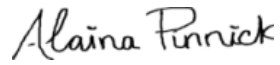
Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A/6020B	01-SEP-2024
SW846 3005A/6020B	31-AUG-2024



Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4443.

Sincerely,

A handwritten signature in black ink that reads "Alaina Pinnick". The script is cursive and fluid, with the first name "Alaina" and last name "Pinnick" clearly distinguishable.

Alaina Pinnick
Project Manager

Purchase Order: GPC82177-0005
Chain of Custody: 6
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 682328 GEL Work Order: 682328

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Alaina Pinnick.

Reviewed by

Alaina Pinnick

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance

Client Sample ID: ARK-STN-TW22 Project: GPCC00100
Sample ID: 682328001 Client ID: GPCC001
Matrix: WG
Collect Date: 21-AUG-24 08:45
Receive Date: 22-AUG-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Iron		32.8	0.0330	0.100	mg/L	1.00	1	BAJ	08/31/24	1711	2661587	1
Manganese		7.32	0.0250	0.125	mg/L	1.00	25	BAJ	09/01/24	1242	2661587	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AB5	08/26/24	0820	2661586

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 6, 2024

Page 1 of 2

Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia
Contact: Joju Abraham

Workorder: 682328

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661587										
QC1205832001	LCS										
Iron	2.00			2.02	mg/L		101	(80%-120%)	BAJ	08/31/24	16:15
Manganese	0.0500			0.0487	mg/L		97.3	(80%-120%)		09/01/24	12:24
QC1205832000	MB										
Iron			U	ND	mg/L					08/31/24	16:12
Manganese			U	ND	mg/L					09/01/24	12:23
QC1205832002	682324001	MS									
Iron	2.00	U	ND	1.95	mg/L		97.2	(75%-125%)		08/31/24	16:26
Manganese	0.0500	U	ND	0.0491	mg/L		96.5	(75%-125%)		09/01/24	12:27
QC1205832003	682324001	MSD									
Iron	2.00	U	ND	1.95	mg/L	0.419	96.8	(0%-20%)		08/31/24	16:29
Manganese	0.0500	U	ND	0.0494	mg/L	0.586	97.1	(0%-20%)		09/01/24	12:28
QC1205832004	682324001	SDILT									
Iron		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/31/24	16:35
Manganese		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/01/24	12:30

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 682328

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
N	Metals--The Matrix spike sample recovery is not within specified control limits										
H	Analytical holding time was exceeded										
<	Result is less than value reported										
>	Result is greater than value reported										
h	Preparation or preservation holding time was exceeded										
R	Sample results are rejected										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
N1	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
J	See case narrative for an explanation										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Metals
Technical Case Narrative
Georgia Power Company
SDG #: 682328

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2661587

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 15

Preparation Batch: 2661586

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682328001	ARK-STN-TW22
1205832000	Method Blank (MB)ICP-MS
1205832001	Laboratory Control Sample (LCS)
1205832004	682324001(ARK-ARGWA-14L) Serial Dilution (SD)
1205832002	682324001(ARK-ARGWA-14S) Matrix Spike (MS)
1205832003	682324001(ARK-ARGWA-14SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 682328001 (ARK-STN-TW22) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	682328
	001
Manganese	25X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

[illegible]



SAMPLE RECEIPT & REVIEW FORM

682328

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:	
Received By: <u>QG</u>		Date Received: <u>8/22/24</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier <u>Other</u>	
		<u>n/a</u>	
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Other:	
Sample Receipt Criteria		Yes <input type="checkbox"/> NA <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	NA	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	NA	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	NA	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	NA	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	NA	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	NA	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	NA	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
			Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
			Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___
8 Samples received within holding time?	<input checked="" type="checkbox"/>	NA	Sample ID's and containers affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	NA	ID's and tests affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	NA	ID's and containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	NA	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	NA	Circle Applicable: No container count on COC Other (describe)
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	NA	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed): Cooler 1-0% 6-0% 2-0% 7-1% 3-1% 8-0% 4-0% 5-0%			

PM (or PMA) review: Initials

HJB

Date

8/23/24

Page 1 of 1

List of current GEL Certifications as of 06 September 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-41
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

December 30, 2024

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Arkwright CCR Groundwater Compliance Plant Arkwright Ash Pond 2
Work Order: 700475

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on December 13, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
700475001	ARK-ARAMW-10	Ground Water	12/12/24 13:10	12/13/24 09:20
700475002	ARK-ARAMW-10	Ground Water	12/12/24 13:10	12/13/24 09:20
700475003	ARK-ARAMW-11	Ground Water	12/12/24 15:15	12/13/24 09:20
700475004	ARK-ARAMW-11	Ground Water	12/12/24 15:15	12/13/24 09:20

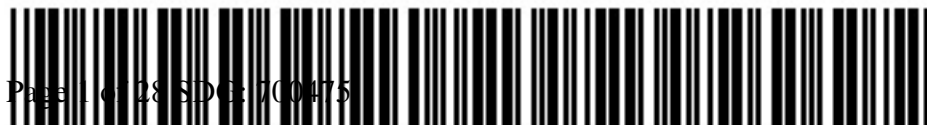
Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	17-DEC-2024
SW846 7470A Prep	16-DEC-2024

Analysis Methods and Analysis Dates

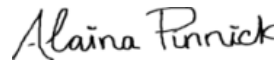
<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	23-DEC-2024
EPA 300.0	25-DEC-2024
EPA 300.0	26-DEC-2024
EPA 353.2 Low Level	16-DEC-2024



SM 2320B	13-DEC-2024
SM 2540C	19-DEC-2024
SW846 3005A/6020B	28-DEC-2024
SW846 3005A/6020B	30-DEC-2024
SW846 7470A	17-DEC-2024

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. .

Sincerely,

A handwritten signature in black ink that reads "Alaina Pinnick". The script is cursive and fluid, with the first name "Alaina" and last name "Pinnick" clearly distinguishable.

Alaina Pinnick
Project Manager

Purchase Order: GPC82177-0005
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC003 Georgia Power Company

Client SDG: 700475 GEL Work Order: 700475

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Alaina Pinnick.

Reviewed by

Alaina Pinnick

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 30, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham

Project: Arkwright CCR Groundwater CompliancePlant Arkwright Ash Pond 2

Client Sample ID: ARK-ARAMW-10

Project: GPCC01924

Sample ID: 700475001

Client ID: GPCC003

Matrix: WG

Collect Date: 12-DEC-24 13:10

Receive Date: 13-DEC-24

Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.02	0.0670	0.200	mg/L		1	RXB5	12/26/24	1351	2726006	1
Fluoride		0.114	0.0330	0.100	mg/L		1					
Sulfate		1080	13.3	40.0	mg/L		100	RXB5	12/26/24	1727	2726006	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	12/17/24	1432	2721813	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B Total Metals* "As Received"												
Calcium		363	3.20	8.00	mg/L	1.00	40	RM4	12/30/24	1014	2721530	4
Magnesium		80.5	0.400	1.20	mg/L	1.00	40					
Aluminum	J	0.0460	0.0193	0.0500	mg/L	1.00	1	RM4	12/30/24	1038	2721530	5
Iron		0.966	0.0330	0.100	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	RM4	12/28/24	0421	2721530	6
Arsenic	J	0.00360	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0550	0.000670	0.00400	mg/L	1.00	1					
Beryllium	J	0.000204	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000327	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0186	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0631	0.00300	0.0100	mg/L	1.00	1					
Potassium		8.49	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		39.0	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		2.84	0.208	0.600	mg/L	1.00	40	RM4	12/30/24	1223	2721530	7
Manganese		22.0	0.0400	0.200	mg/L	1.00	40					
Molybdenum		0.00148	0.000200	0.00100	mg/L	1.00	1	RM4	12/30/24	1246	2721530	8
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	12/16/24	0738	2721689	9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Certificate of Analysis

Report Date: December 30, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Project: Arkwright CCR Groundwater Compliance Plant Arkwright Ash Pond 2

Client Sample ID: ARK-ARAMW-10 Project: GPCC01924
Sample ID: 700475001 Client ID: GPCC003

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1790	2.38	10.0	mg/L			KLP1	12/19/24	1330	2723806	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		113	0.725	2.00	mg/L			JW2	12/13/24	1233	2721233	11
Bicarbonate alkalinity (CaCO ₃)		113	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	12/16/24	1130	2721811
SW846 3005A	ICP-MS 3005A PREP	BB2	12/17/24	0815	2721529

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	EPA 353.2 Low Level	
10	SM 2540C	
11	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 30, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance Plant Arkwright Ash Pond 2

Client Sample ID: ARK-ARAMW-10 Project: GPCC01924
Sample ID: 700475002 Client ID: GPCC003
Matrix: WG
Collect Date: 12-DEC-24 13:10
Receive Date: 13-DEC-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Manganese		22.6	0.0400	0.200	mg/L	1.00	40	RM4	12/30/24	1235	2721530	1
Iron		0.973	0.0330	0.100	mg/L	1.00	1	RM4	12/30/24	1050	2721530	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	12/17/24	0815	2721529

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 30, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Joju Abraham

Project: Arkwright CCR Groundwater CompliancePlant Arkwright Ash Pond 2

Client Sample ID: ARK-ARAMW-11

Project: GPCC01924

Sample ID: 700475003

Client ID: GPCC003

Matrix: WG

Collect Date: 12-DEC-24 15:15

Receive Date: 13-DEC-24

Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Sulfate		960	13.3	40.0	mg/L		100	RXB5	12/26/24	1757	2726006	1
Chloride		5.22	0.0670	0.200	mg/L		1	RXB5	12/26/24	1453	2726006	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	12/17/24	1437	2721813	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B Total Metals* "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	RM4	12/28/24	0451	2721530	4
Arsenic	J	0.00314	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0252	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0394	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0471	0.00300	0.0100	mg/L	1.00	1					
Potassium		7.21	0.0800	0.300	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Silver	U	ND	0.000300	0.00100	mg/L	1.00	1					
Sodium		29.5	0.0800	0.250	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Molybdenum	J	0.000630	0.000200	0.00100	mg/L	1.00	1	RM4	12/30/24	1259	2721530	5
Boron		2.30	0.208	0.600	mg/L	1.00	40	RM4	12/30/24	1237	2721530	6
Manganese		16.2	0.0400	0.200	mg/L	1.00	40					
Aluminum		0.0857	0.0193	0.0500	mg/L	1.00	1	RM4	12/30/24	1053	2721530	7
Iron		0.285	0.0330	0.100	mg/L	1.00	1					
Calcium		296	3.20	8.00	mg/L	1.00	40	RM4	12/30/24	1028	2721530	8
Magnesium		86.9	0.400	1.20	mg/L	1.00	40					
Nutrient Analysis												
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND	0.00700	0.0200	mg/L		1	AXH3	12/16/24	0742	2721689	9
Solids Analysis												
SM2540C Dissolved Solids "As Received"												

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Certificate of Analysis

Report Date: December 30, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Contact: Atlanta, Georgia 30308
Project: Joju Abraham
Project: Arkwright CCR Groundwater Compliance Plant Arkwright Ash Pond 2

Client Sample ID: ARK-ARAMW-11 Project: GPCC01924
Sample ID: 700475003 Client ID: GPCC003

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1540	2.38	10.0	mg/L			KLP1	12/19/24	1330	2723806	10
Titration and Ion Analysis												
SM 2320B Total Alkalinity "As Received"												
Alkalinity, Total as CaCO ₃		48.4	0.725	2.00	mg/L			JW2	12/13/24	1235	2721233	11
Bicarbonate alkalinity (CaCO ₃)		48.4	0.725	2.00	mg/L							
Carbonate alkalinity (CaCO ₃)	U	ND	0.725	2.00	mg/L							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	12/16/24	1130	2721811
SW846 3005A	ICP-MS 3005A PREP	BB2	12/17/24	0815	2721529

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SW846 7470A	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SW846 3005A/6020B	
9	EPA 353.2 Low Level	
10	SM 2540C	
11	SM 2320B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 30, 2024

Company : Georgia Power Company, Southern Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Joju Abraham
Project: Arkwright CCR Groundwater Compliance Plant Arkwright Ash Pond 2

Client Sample ID: ARK-ARAMW-11 Project: GPCC01924
Sample ID: 700475004 Client ID: GPCC003
Matrix: WG
Collect Date: 12-DEC-24 15:15
Receive Date: 13-DEC-24
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Fe & Mn "As Received"												
Manganese		15.6	0.0400	0.200	mg/L	1.00	40	RM4	12/30/24	1239	2721530	1
Iron		0.191	0.0330	0.100	mg/L	1.00	1	RM4	12/30/24	1055	2721530	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BB2	12/17/24	0815	2721529

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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QC Summary

Report Date: December 30, 2024

Page 1 of 11

Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia

Contact: Joju Abraham

Workorder: 700475

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2726006										
QC1205960542	700495002	DUP									
Chloride		3.36		3.39	mg/L	0.795		(0%-20%)	RXB5	12/24/24	00:12
Fluoride		0.278		0.255	mg/L	8.33	^	(+/-0.100)			
Sulfate		6.12		6.09	mg/L	0.474		(0%-20%)			
QC1205960539	LCS										
Chloride	5.00			4.57	mg/L		91.4	(90%-110%)		12/23/24	15:59
Fluoride	2.50			2.31	mg/L		92.2	(90%-110%)			
Sulfate	10.0			9.45	mg/L		94.5	(90%-110%)			
QC1205960538	MB										
Chloride			U	ND	mg/L					12/23/24	15:28
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205960543	700495002	PS									
Chloride	5.00	3.36		8.22	mg/L		97.2	(90%-110%)		12/24/24	00:43
Fluoride	2.50	0.278		2.60	mg/L		92.9	(90%-110%)			
Sulfate	10.0	6.12		15.8	mg/L		97.3	(90%-110%)			

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QC Summary

Workorder: 700475

Page 2 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2721530										
QC1205951102	LCS										
Aluminum	2.00			2.08	mg/L		104	(80%-120%)	RM4	12/30/24	10:11
Antimony	0.0500			0.0483	mg/L		96.6	(80%-120%)		12/28/24	04:17
Arsenic	0.0500			0.0500	mg/L		99.9	(80%-120%)			
Barium	0.0500			0.0501	mg/L		100	(80%-120%)			
Beryllium	0.0500			0.0583	mg/L		117	(80%-120%)			
Boron	0.100			0.109	mg/L		109	(80%-120%)		12/30/24	12:21
Cadmium	0.0500			0.0507	mg/L		101	(80%-120%)		12/28/24	04:17
Calcium	2.00			2.22	mg/L		111	(80%-120%)		12/30/24	10:11
Chromium	0.0500			0.0495	mg/L		99.1	(80%-120%)		12/28/24	04:17
Cobalt	0.0500			0.0490	mg/L		98.1	(80%-120%)			
Iron	2.00			2.05	mg/L		102	(80%-120%)		12/30/24	10:11
Lead	0.0500			0.0514	mg/L		103	(80%-120%)		12/28/24	04:17
Lithium	0.0500			0.0530	mg/L		106	(80%-120%)			
Magnesium	2.00			2.22	mg/L		111	(80%-120%)		12/30/24	10:11

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QC Summary

Workorder: 700475

Page 3 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2721530										
Manganese	0.0500			0.0517	mg/L		103	(80%-120%)	RM4	12/30/24	12:21
Molybdenum	0.0500			0.0533	mg/L		107	(80%-120%)			
Potassium	2.00			2.01	mg/L		100	(80%-120%)		12/28/24	04:17
Selenium	0.0500			0.0499	mg/L		99.7	(80%-120%)			
Silver	0.0500			0.0528	mg/L		106	(80%-120%)			
Sodium	2.00			2.16	mg/L		108	(80%-120%)			
Thallium	0.0500			0.0495	mg/L		98.9	(80%-120%)			
QC1205951101	MB										
Aluminum			U	ND	mg/L					12/30/24	10:09
Antimony			U	ND	mg/L					12/28/24	04:13
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					12/30/24	12:19
Cadmium			U	ND	mg/L					12/28/24	04:13

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QC Summary

Workorder: 700475

Page 4 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2721530										
Calcium			U	ND	mg/L				RM4	12/30/24	10:09
Chromium			U	ND	mg/L					12/28/24	04:13
Cobalt			U	ND	mg/L						
Iron			U	ND	mg/L					12/30/24	10:09
Lead			U	ND	mg/L					12/28/24	04:13
Lithium			U	ND	mg/L						
Magnesium			U	ND	mg/L					12/30/24	10:09
Manganese			U	ND	mg/L					12/30/24	12:19
Molybdenum			U	ND	mg/L						
Potassium			U	ND	mg/L					12/28/24	04:13
Selenium			U	ND	mg/L						
Silver			U	ND	mg/L						
Sodium			U	ND	mg/L						
Thallium			U	ND	mg/L						

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QC Summary

Workorder: 700475

Page 5 of 11

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2721530										
QC1205951103	700475001 MS										
Aluminum	2.00	J	0.0460	1.98	mg/L		96.9	(75%-125%)	RM4	12/30/24	10:41
Antimony	0.0500	U	ND	0.0468	mg/L		93.5	(75%-125%)		12/28/24	04:24
Arsenic	0.0500	J	0.00360	0.0536	mg/L		100	(75%-125%)			
Barium	0.0500		0.0550	0.0995	mg/L		88.9	(75%-125%)			
Beryllium	0.0500	J	0.000204	0.0527	mg/L		105	(75%-125%)			
Boron	0.100		2.84	2.79	mg/L		N/A	(75%-125%)		12/30/24	12:26
Cadmium	0.0500	J	0.000327	0.0451	mg/L		89.5	(75%-125%)		12/28/24	04:24
Calcium	2.00		363	366	mg/L		N/A	(75%-125%)		12/30/24	10:16
Chromium	0.0500	U	ND	0.0463	mg/L		91.8	(75%-125%)		12/28/24	04:24
Cobalt	0.0500		0.0186	0.0615	mg/L		85.7	(75%-125%)			
Iron	2.00		0.966	2.80	mg/L		91.8	(75%-125%)		12/30/24	10:41
Lead	0.0500	U	ND	0.0439	mg/L		87.7	(75%-125%)		12/28/24	04:24
Lithium	0.0500		0.0631	0.113	mg/L		100	(75%-125%)			
Magnesium	2.00		80.5	78.3	mg/L		N/A	(75%-125%)		12/30/24	10:16

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QC Summary

Workorder: 700475

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2721530										
Manganese	0.0500	22.0		22.2	mg/L		N/A	(75%-125%)	RM4	12/30/24	12:26
Molybdenum	0.0500	0.00148		0.0578	mg/L		113	(75%-125%)		12/30/24	12:48
Potassium	2.00	8.49		10.3	mg/L		N/A	(75%-125%)		12/28/24	04:24
Selenium	0.0500	U	ND	0.0532	mg/L		105	(75%-125%)			
Silver	0.0500	U	ND	0.0435	mg/L		86.9	(75%-125%)			
Sodium	2.00	39.0		39.8	mg/L		N/A	(75%-125%)			
Thallium	0.0500	U	ND	0.0435	mg/L		87	(75%-125%)			
QC1205951104 700475001 MSD											
Aluminum	2.00	J	0.0460	2.01	mg/L	1.13	98	(0%-20%)		12/30/24	10:43
Antimony	0.0500	U	ND	0.0458	mg/L	2.2	91.4	(0%-20%)		12/28/24	04:28
Arsenic	0.0500	J	0.00360	0.0556	mg/L	3.74	104	(0%-20%)			
Barium	0.0500		0.0550	0.0997	mg/L	0.218	89.4	(0%-20%)			
Beryllium	0.0500	J	0.000204	0.0543	mg/L	2.99	108	(0%-20%)			
Boron	0.100		2.84	2.82	mg/L	0.902	N/A	(0%-20%)		12/30/24	12:28
Cadmium	0.0500	J	0.000327	0.0461	mg/L	2.26	91.6	(0%-20%)		12/28/24	04:28

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QC Summary

Workorder: 700475

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2721530											
Calcium	2.00		363		363	mg/L	0.668	N/A	(0%-20%)	RM4	12/30/24	10:19
Chromium	0.0500	U	ND		0.0468	mg/L	1.06	92.7	(0%-20%)		12/28/24	04:28
Cobalt	0.0500		0.0186		0.0640	mg/L	4.07	90.8	(0%-20%)			
Iron	2.00		0.966		2.81	mg/L	0.162	92	(0%-20%)		12/30/24	10:43
Lead	0.0500	U	ND		0.0452	mg/L	2.85	90.2	(0%-20%)		12/28/24	04:28
Lithium	0.0500		0.0631		0.114	mg/L	0.645	102	(0%-20%)			
Magnesium	2.00		80.5		78.4	mg/L	0.0412	N/A	(0%-20%)		12/30/24	10:19
Manganese	0.0500		22.0		21.7	mg/L	2.34	N/A	(0%-20%)		12/30/24	12:28
Molybdenum	0.0500		0.00148		0.0574	mg/L	0.717	112	(0%-20%)		12/30/24	12:50
Potassium	2.00		8.49		10.2	mg/L	0.926	N/A	(0%-20%)		12/28/24	04:28
Selenium	0.0500	U	ND		0.0551	mg/L	3.39	108	(0%-20%)			
Silver	0.0500	U	ND		0.0445	mg/L	2.43	89.1	(0%-20%)			
Sodium	2.00		39.0		39.8	mg/L	0.0103	N/A	(0%-20%)			
Thallium	0.0500	U	ND		0.0447	mg/L	2.8	89.4	(0%-20%)			

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QC Summary

Workorder: 700475

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2721530										
QC1205951105	700475001	SDILT									
Aluminum	J	46.0	U	ND	ug/L	N/A		(0%-20%)	RM4	12/30/24	10:48
Antimony	U	ND	U	ND	ug/L	N/A		(0%-20%)		12/28/24	04:36
Arsenic	J	3.60	U	ND	ug/L	N/A		(0%-20%)			
Barium		55.0		11.1	ug/L	.929		(0%-20%)			
Beryllium	J	0.204	U	ND	ug/L	N/A		(0%-20%)			
Boron		70.9		15.8	ug/L	11.4		(0%-20%)		12/30/24	12:32
Cadmium	J	0.327	U	ND	ug/L	N/A		(0%-20%)		12/28/24	04:36
Calcium		9080		1740	ug/L	4.01		(0%-20%)		12/30/24	10:24
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		12/28/24	04:36
Cobalt		18.6		3.96	ug/L	6.21		(0%-20%)			
Iron		966		205	ug/L	6.23		(0%-20%)		12/30/24	10:48
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)		12/28/24	04:36
Lithium		63.1		12.5	ug/L	1.16		(0%-20%)			
Magnesium		2010		380	ug/L	5.49		(0%-20%)		12/30/24	10:24

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QC Summary

Workorder: 700475

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2721530										
Manganese		550		111	ug/L	.794		(0%-20%)	RM4	12/30/24	12:32
Molybdenum		1.48	J	0.295	ug/L	.472		(0%-20%)		12/30/24	12:55
Potassium		8490		1700	ug/L	.08		(0%-20%)		12/28/24	04:36
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		39000		7450	ug/L	4.38		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2721813										
QC1205951827	700240001	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	12/17/24	14:22
QC1205951826	LCS										
Mercury		0.00200		0.00198	mg/L		99.2	(80%-120%)		12/17/24	13:52
QC1205951825	MB										
Mercury			U	ND	mg/L					12/17/24	13:50
QC1205951828	700240001	MS									
Mercury		0.00200	U	ND	0.00195	mg/L		97.3	(75%-125%)	12/17/24	14:23
QC1205951829	700240001	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		12/17/24	14:25

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QC Summary

Workorder: 700475

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Nutrient Analysis											
Batch	2721689										
QC1205951547	700475001	DUP									
Nitrogen, Nitrate/Nitrite	U	ND	U	ND	mg/L	N/A			AXH3	12/16/24	07:40
QC1205951546	LCS										
Nitrogen, Nitrate/Nitrite	1.00			1.00	mg/L		100	(90%-110%)		12/16/24	07:37
QC1205951545	MB										
Nitrogen, Nitrate/Nitrite			J	0.00883	mg/L					12/16/24	07:36
QC1205951548	700475001	PS									
Nitrogen, Nitrate/Nitrite	1.00	U	ND	0.982	mg/L		98	(90%-110%)		12/16/24	07:41
Solids Analysis											
Batch	2723806										
QC1205956007	700539001	DUP									
Total Dissolved Solids			438	430	mg/L	1.84		(0%-5%)	KLP1	12/19/24	13:30
QC1205956005	LCS										
Total Dissolved Solids	300			290	mg/L		96.7	(95%-105%)		12/19/24	13:30
QC1205956004	MB										
Total Dissolved Solids			U	ND	mg/L					12/19/24	13:30
Titration and Ion Analysis											
Batch	2721233										
QC1205950586	LCS										
Alkalinity, Total as CaCO3	50.0			53.5	mg/L		107	(90%-110%)	JW2	12/13/24	12:28
QC1205950588	LCSD										
Alkalinity, Total as CaCO3	50.0			53.4	mg/L	0.187	107	(0%-20%)		12/13/24	12:29

Notes:

The Qualifiers in this report are defined as follows:

GEL LABORATORIES LLC

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.										
J	Value is estimated										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
N	Metals--The Matrix spike sample recovery is not within specified control limits										
H	Analytical holding time was exceeded										
<	Result is less than value reported										
>	Result is greater than value reported										
h	Preparation or preservation holding time was exceeded										
R	Sample results are rejected										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range										
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies										
N1	See case narrative										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
R	Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.										
B	The target analyte was detected in the associated blank.										
e	5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes										
x	Subaliquot was taken. See Case Narrative for details.										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative
Georgia Power Company
SDG #: 700475**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 36

Analytical Batch: 2721530

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 15

Preparation Batch: 2721529

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700475001	ARK-ARAMW-10
700475002	ARK-ARAMW-10
700475003	ARK-ARAMW-11
700475004	ARK-ARAMW-11
1205951101	Method Blank (MB)
1205951102	ICP-MS Laboratory Control Sample (LCS)
1205951105	700475001(ARK-ARAMW-10L) Serial Dilution (SD)
1205951103	700475001(ARK-ARAMW-10S) Matrix Spike (MS)
1205951104	700475001(ARK-ARAMW-10SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 700475001 (ARK-ARAMW-10), 700475002 (ARK-ARAMW-10), 700475003 (ARK-ARAMW-11) and 700475004 (ARK-ARAMW-11) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	700475			
	001	002	003	004
Boron	40X		40X	

Calcium	40X		40X	
Magnesium	40X		40X	
Manganese	40X	40X	40X	40X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 41

Analytical Batch: 2721813

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 41

Preparation Batch: 2721811

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700475001	ARK-ARAMW-10
700475003	ARK-ARAMW-11
1205951825	Method Blank (MB)CVAA
1205951826	Laboratory Control Sample (LCS)
1205951829	700240001(NonSDGL) Serial Dilution (SD)
1205951827	700240001(NonSDGD) Sample Duplicate (DUP)
1205951828	700240001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 36

Analytical Batch: 2726006

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700475001	ARK-ARAMW-10
700475003	ARK-ARAMW-11
1205960538	Method Blank (MB)
1205960539	Laboratory Control Sample (LCS)
1205960542	700495002(NonSDG) Sample Duplicate (DUP)
1205960543	700495002(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information**Sample Dilutions**

The following samples 700475001 (ARK-ARAMW-10) and 700475003 (ARK-ARAMW-11) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	700475	
	001	003
Sulfate	100X	100X

Sample Re-analysis

Samples 700475001 (ARK-ARAMW-10) and 700475003 (ARK-ARAMW-11) were re-analyzed to verify the results.

Miscellaneous Information**Manual Integrations**

Sample 700475001 (ARK-ARAMW-10) was manually integrated to correctly position the baseline as set in the calibration standards.

Product: Nitrate/Nitrite Cad Redux Low Level

Analytical Method: EPA 353.2 Low Level

Analytical Procedure: GL-GC-E-128 REV# 16

Analytical Batch: 2721689

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#**Client Sample Identification**

700475001	ARK-ARAMW-10
700475003	ARK-ARAMW-11
1205951545	Method Blank (MB)
1205951546	Laboratory Control Sample (LCS)
1205951547	700475001(ARK-ARAMW-10) Sample Duplicate (DUP)
1205951548	700475001(ARK-ARAMW-10) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 22

Analytical Batch: 2723806

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700475001	ARK-ARAMW-10
700475003	ARK-ARAMW-11
1205956004	Method Blank (MB)
1205956005	Laboratory Control Sample (LCS)
1205956007	700539001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Alkalinity

Analytical Method: SM 2320B

Analytical Procedure: GL-GC-E-033 REV# 17

Analytical Batch: 2721233

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700475001	ARK-ARAMW-10
700475003	ARK-ARAMW-11
1205950586	Laboratory Control Sample (LCS)
1205950588	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Laboratory Control Sample Duplicate (LCSD)

An LCSD was used in place of matrix QC due to limited sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

[illegible]

SAMPLE RECEIPT & REVIEW FORM

700475
700476

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:		
Received By: <u>QG</u>		Date Received: <u>12/13/24</u>		
Carrier and Tracking Number		Circle Applicable: <input checked="" type="radio"/> FedEx Express <input type="radio"/> FedEx Ground <input type="radio"/> UPS <input type="radio"/> Field Services <input type="radio"/> Courier <input type="radio"/> Other		
		<u>2831 9572 2650</u>		
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.		
A) Shipped as a DOT Hazardous?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> (PM) / mR/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:		
Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry ice <input type="checkbox"/> None <input type="checkbox"/> Other: *all temperatures are recorded in Celsius TEMP: <u>0°C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: <u>No container count on COC</u> Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):				

PM (or PMA) review: Initials mf Date 12/16/24 Page 1 of 1

List of current GEL Certifications as of 30 December 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

January 08, 2025

Joju Abraham
Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Arkwright CCR Groundwater Compliance Relog:
Work Order: 700476

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on December 13, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt. The laboratory received the following sample(s):

<u>Laboratory ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
700476001	ARK-ARAMW-10	Ground Water	12/12/24 13:10	12/13/24 09:20
700476002	ARK-ARAMW-11	Ground Water	12/12/24 15:15	12/13/24 09:20

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Prep Methods and Prep Dates

Not Applicable

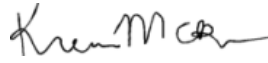
Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
Calculation	08-JAN-2025
EPA 903.1 Modified	03-JAN-2025
EPA 904.0/SW846 9320 Modified	02-JAN-2025



Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. .

Sincerely,

A handwritten signature in black ink, appearing to read "Kierra McKnight".

Kierra McKnight for
Alaina Pinnick
Project Manager

Purchase Order: GPC82177-0005
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

GPCC003 Georgia Power Company

Client SDG: 700476 GEL Work Order: 700476

The Qualifiers in this report are defined as follows:

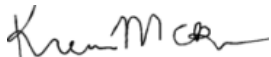
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Alaina Pinnick.

Reviewed by



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: January 8, 2025

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog:

Client Sample ID: ARK-ARAMW-10
Sample ID: 700476001
Matrix: WG
Collect Date: 12-DEC-24
Receive Date: 13-DEC-24
Collector: Client

Project: GPCC01924
Client ID: GPCC003

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
-----------	-----------	--------	-------------	-----	-----	----	-------	----	----	---------	------	------	-------	------

Rad Gas Flow Proportional Counting

GFPC Ra228, Liquid "As Received"

Radium-228		4.45	+/-1.38	1.62	+/-1.79	3.00	pCi/L			ST2	01/02/25	1314	2721613	1
------------	--	------	---------	------	---------	------	-------	--	--	-----	----------	------	---------	---

Radium-226+Radium-228 Calculation "See Parent Products"

Radium-226+228 Sum		8.18	+/-1.58	1.62	+/-2.04		pCi/L			NXL1	01/08/25	1045	2721917	2
--------------------	--	------	---------	------	---------	--	-------	--	--	------	----------	------	---------	---

Rad Radium-226

Lucas Cell, Ra226, Liquid "As Received"

Radium-226		3.73	+/-0.766	0.307	+/-0.981	1.00	pCi/L			MJ2	01/03/25	1108	2723181	3
------------	--	------	----------	-------	----------	------	-------	--	--	-----	----------	------	---------	---

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2721613	84.4	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company, Southern
Address : Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: January 8, 2025

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog:

Client Sample ID: ARK-ARAMW-11

Project: GPCC01924

Sample ID: 700476002

Client ID: GPCC003

Matrix: WG

Collect Date: 12-DEC-24

Receive Date: 13-DEC-24

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.17	+/-0.887	1.37	+/-0.937	3.00	pCi/L			ST2	01/02/25	1314	2721613	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.91	+/-1.00	1.37	+/-1.12		pCi/L			NXL1	01/08/25	1045	2721917	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.74	+/-0.470	0.331	+/-0.611	1.00	pCi/L			MJ2	01/03/25	1108	2723181	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2721613	91.4	(15%-125%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 700476**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 45

Analytical Batch: 2721917

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700476001	ARK-ARAMW-10
700476002	ARK-ARAMW-11

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2721613

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700476001	ARK-ARAMW-10
700476002	ARK-ARAMW-11
1205951331	Method Blank (MB)
1205951332	700476001(ARK-ARAMW-10) Sample Duplicate (DUP)
1205951333	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

RDL Met

The following RDL was met with rounding.

Sample	Analyte	Value
1205951332 (ARK-ARAMW-10DUP)	Radium-228	Result 2.79 < MDA 3.06 > RDL 3 pCi/L

Technical Information

Recounts

Sample 1205951332 (ARK-ARAMW-10DUP) was recounted to verify sample results. Recount is reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2723181

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
700476001	ARK-ARAMW-10
700476002	ARK-ARAMW-11
1205954780	Method Blank (MB)
1205954781	700252001(NonSDG) Sample Duplicate (DUP)
1205954782	700252001(NonSDG) Matrix Spike (MS)
1205954783	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1205954781 (Non SDG 700252001DUP)	Radium-226	RPD 52.4* (0.00%-20.00%) RER 1.84 (0-3)

Technical Information

Recounts

Sample 1205954783 (LCS) was recounted due to low recovery. The recount is reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1205954782 (Non SDG 700252001MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Client : Georgia Power Company, Southern Company
241 Ralph McGill Blvd NE, Bin 10160

Report Date: January 8, 2025
Page 1 of 2

Contact: Atlanta, Georgia
Joju Abraham
Workorder: 700476

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2721613										
QC1205951332	700476001	DUP									
Radium-228		4.45	U	2.79	pCi/L	45.9		(0% - 100%)	ST2	01/02/25	15:32
		Uncert:		+/-1.94							
		TPU:		+/-2.06							
QC1205951333	LCS										
Radium-228	80.1			78.8	pCi/L		98.4	(75%-125%)	ST2	01/02/25	13:14
		Uncert:		+/-4.58							
		TPU:		+/-20.6							
QC1205951331	MB										
Radium-228			U	1.10	pCi/L				ST2	01/02/25	13:13
		Uncert:		+/-1.19							
		TPU:		+/-1.22							
Rad Ra-226											
Batch	2723181										
QC1205954781	700252001	DUP									
Radium-226		1.62		0.945	pCi/L	52.4*		(0%-20%)	MJ2	01/03/25	12:00
		Uncert:		+/-0.375							
		TPU:		+/-0.430							
QC1205954783	LCS										
Radium-226	27.2			21.3	pCi/L		78.2	(75%-125%)	MJ2	01/03/25	16:35
		Uncert:		+/-1.59							
		TPU:		+/-4.33							
QC1205954780	MB										
Radium-226			U	0.491	pCi/L				MJ2	01/03/25	12:00
		Uncert:		+/-0.393							
		TPU:		+/-0.402							
QC1205954782	700252001	MS									
Radium-226	135	1.62		107	pCi/L		78.4	(75%-125%)	MJ2	01/03/25	12:00
		Uncert:		+/-8.39							
		TPU:		+/-19.2							

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 700476

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI	Gamma Spectroscopy--Uncertain identification									
BD	Results are either below the MDC or tracer recovery is low									
h	Preparation or preservation holding time was exceeded									
R	Sample results are rejected									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
N/A	RPD or %Recovery limits do not apply.									
ND	Analyte concentration is not detected above the detection limit									
M	M if above MDC and less than LLD									
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
FA	Failed analysis.									
UJ	Gamma Spectroscopy--Uncertain identification									
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.									
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.									
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.									
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.									
N1	See case narrative									
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.									
**	Analyte is a Tracer compound									
M	REMP Result > MDC/CL and < RDL									
x	Subaliquot was taken. See Case Narrative for details.									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

[illegible]

SAMPLE RECEIPT & REVIEW FORM

700475
700476

Client: <u>GPCC</u>		SDG/AR/COC/Work Order:		
Received By: <u>QG</u>		Date Received: <u>12/13/24</u>		
Carrier and Tracking Number		Circle Applicable: <input checked="" type="radio"/> FedEx Express <input type="radio"/> FedEx Ground <input type="radio"/> UPS <input type="radio"/> Field Services <input type="radio"/> Courier <input type="radio"/> Other		
		<u>2831 9572 2650</u>		
Suspected Hazard Information	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.		
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	COC notation or radioactive stickers on containers equal client designation		
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> (CPM)/mR/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	COC notation or hazard labels on containers equal client designation		
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If D or E is yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____		
Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>0°C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: <u>No container count on COC</u> Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):				

PM (or PMA) review: Initials mf Date 12/16/24 Page 1 of 1

List of current GEL Certifications as of 08 January 2025

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	525-24-281-19660
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780



August 20, 2024

Kelley Sharpe
ARCADIS - Atlanta
2839 Paces Ferry Rd
STE 900
Atlanta, GA 30339

RE: Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on August 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

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

Sincerely,

Maiya Parks
maiya.parks@pacelabs.com
770-734-4205
Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Jordan Gamble, ARCADIS - Atlanta
Ben Hodges, Southern Company
Priya Jacob, ARCADIS - Atlanta
Jennifer Kolbe, Stantec Consulting
Laura Midkiff, Southern Company
Noelia Muskus Ruiz, Georgia Power
Tina Sullivan, ERM



REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747267

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



SAMPLE SUMMARY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747267

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92747267001	ARK-BC-0.8a	Water	08/12/24 11:50	08/13/24 13:25
92747267002	ARK-BC-0.5.5	Water	08/12/24 12:11	08/13/24 13:25
92747267003	ARK-BC-0.5.6	Water	08/12/24 12:17	08/13/24 13:25
92747267004	ARK-BC-0.5.7	Water	08/12/24 11:16	08/13/24 13:25
92747267005	ARK-BC-BR	Water	08/12/24 10:43	08/13/24 13:25

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SAMPLE ANALYTE COUNT

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747267

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92747267001	ARK-BC-0.8a	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747267002	ARK-BC-0.5.5	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747267003	ARK-BC-0.5.6	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747267004	ARK-BC-0.5.7	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747267005	ARK-BC-BR	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	3	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

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

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

Sample: ARK-BC-0.8a		Lab ID: 92747267001		Collected: 08/12/24 11:50		Received: 08/13/24 13:25		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:42	7440-42-8		
Potassium	2.4	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:42	7440-09-7		
Sodium	8.8	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:42	7440-23-5		
Calcium	10.8	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:42	7440-70-2		
Magnesium	4.8	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:42	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:48	7440-48-4		
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:48	7439-93-2		
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:48	7439-98-7		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	106	mg/L	25.0	1		08/15/24 10:50			
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	55.9	mg/L	5.0	1		08/14/24 17:49			
Alkalinity, Total as CaCO3	55.9	mg/L	5.0	1		08/14/24 17:49			
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	7.6	mg/L	1.0	1		08/14/24 15:31	16887-00-6		
Fluoride	ND	mg/L	0.10	1		08/14/24 15:31	16984-48-8		
Sulfate	3.8	mg/L	1.0	1		08/14/24 15:31	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747267

Sample: ARK-BC-0.5.5		Lab ID: 92747267002		Collected: 08/12/24 12:11		Received: 08/13/24 13:25		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:46	7440-42-8		
Potassium	2.4	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:46	7440-09-7		
Sodium	9.0	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:46	7440-23-5		
Calcium	12.2	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:46	7440-70-2		
Magnesium	5.2	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:46	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:53	7440-48-4		
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:53	7439-93-2		
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:53	7439-98-7		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	113	mg/L	25.0	1		08/15/24 10:50			
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	56.3	mg/L	5.0	1		08/14/24 17:56			
Alkalinity, Total as CaCO3	56.3	mg/L	5.0	1		08/14/24 17:56			
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	7.6	mg/L	1.0	1		08/14/24 15:45	16887-00-6		
Fluoride	ND	mg/L	0.10	1		08/14/24 15:45	16984-48-8		
Sulfate	7.6	mg/L	1.0	1		08/14/24 15:45	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

Sample: ARK-BC-0.5.6		Lab ID: 92747267003		Collected: 08/12/24 12:17		Received: 08/13/24 13:25		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:49	7440-42-8		
Potassium	2.5	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:49	7440-09-7		
Sodium	8.9	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:49	7440-23-5		
Calcium	12.3	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:49	7440-70-2		
Magnesium	5.2	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:49	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:57	7440-48-4		
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:57	7439-93-2		
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:57	7439-98-7		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	141	mg/L	25.0	1		08/16/24 14:10			
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	57.2	mg/L	5.0	1		08/14/24 18:02			
Alkalinity, Total as CaCO3	57.2	mg/L	5.0	1		08/14/24 18:02			
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	7.6	mg/L	1.0	1		08/14/24 15:59	16887-00-6		
Fluoride	ND	mg/L	0.10	1		08/14/24 15:59	16984-48-8		
Sulfate	7.6	mg/L	1.0	1		08/14/24 15:59	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

Sample: ARK-BC-0.5.7		Lab ID: 92747267004		Collected: 08/12/24 11:16		Received: 08/13/24 13:25		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:53	7440-42-8		
Potassium	2.3	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:53	7440-09-7		
Sodium	8.5	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:53	7440-23-5		
Calcium	11.7	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:53	7440-70-2		
Magnesium	5.0	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:53	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 17:01	7440-48-4		
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 17:01	7439-93-2		
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 17:01	7439-98-7		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	127	mg/L	25.0	1		08/16/24 14:11			
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	58.1	mg/L	5.0	1		08/14/24 18:09			
Alkalinity, Total as CaCO3	58.1	mg/L	5.0	1		08/14/24 18:09			
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	7.5	mg/L	1.0	1		08/14/24 16:13	16887-00-6		
Fluoride	ND	mg/L	0.10	1		08/14/24 16:13	16984-48-8		
Sulfate	8.7	mg/L	1.0	1		08/14/24 16:13	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

Sample: ARK-BC-BR		Lab ID: 92747267005		Collected: 08/12/24 10:43		Received: 08/13/24 13:25		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Boron	ND	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:57	7440-42-8		
Potassium	2.3	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:57	7440-09-7		
Sodium	8.4	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:57	7440-23-5		
Calcium	11.4	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:57	7440-70-2		
Magnesium	4.9	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:57	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 17:05	7440-48-4		
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 17:05	7439-93-2		
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 17:05	7439-98-7		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	130	mg/L	25.0	1		08/16/24 14:11			
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	56.9	mg/L	5.0	1		08/14/24 18:16			
Alkalinity, Total as CaCO3	56.9	mg/L	5.0	1		08/14/24 18:16			
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	7.6	mg/L	1.0	1		08/14/24 16:27	16887-00-6		
Fluoride	ND	mg/L	0.10	1		08/14/24 16:27	16984-48-8		
Sulfate	7.5	mg/L	1.0	1		08/14/24 16:27	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

QC Batch: 875955 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

METHOD BLANK: 4512090 Matrix: Water
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	08/19/24 13:54	
Calcium	mg/L	ND	1.0	08/19/24 13:54	
Magnesium	mg/L	ND	0.050	08/19/24 13:54	
Potassium	mg/L	ND	0.50	08/19/24 13:54	
Sodium	mg/L	ND	1.0	08/19/24 13:54	

LABORATORY CONTROL SAMPLE: 4512091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	101	80-120	
Calcium	mg/L	1	1.0	105	80-120	
Magnesium	mg/L	1	1.0	104	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4512092 4512093

Parameter	Units	92747247001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	ND	1	1	1.1	1.1	105	103	75-125	2	20	
Calcium	mg/L	11.5	1	1	13.1	13.1	155	159	75-125	0	20 M1	
Magnesium	mg/L	4.9	1	1	6.1	6.2	118	126	75-125	1	20 M1	
Potassium	mg/L	2.3	1	1	3.5	3.5	113	112	75-125	0	20	
Sodium	mg/L	8.5	1	1	9.7	9.8	126	134	75-125	1	20 M1	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

QC Batch: 875521 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

METHOD BLANK: 4509771 Matrix: Water
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cobalt	mg/L	ND	0.0050	08/14/24 15:37	
Lithium	mg/L	ND	0.030	08/14/24 15:37	
Molybdenum	mg/L	ND	0.010	08/14/24 15:37	

LABORATORY CONTROL SAMPLE: 4509772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cobalt	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	108	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4509773 4509774

Parameter	Units	92746959001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	ND	0.1	0.1	0.10	0.097	102	97	75-125	4	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	108	106	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	103	105	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

QC Batch: 875851 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92747267001, 92747267002

METHOD BLANK: 4511546 Matrix: Water
Associated Lab Samples: 92747267001, 92747267002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	08/15/24 10:43	

LABORATORY CONTROL SAMPLE: 4511547

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	80-120	

SAMPLE DUPLICATE: 4511548

Parameter	Units	92747047013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	250	250	0	10	

SAMPLE DUPLICATE: 4511549

Parameter	Units	92746783020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	162	154	5	10	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

QC Batch: 876190 Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92747267003, 92747267004, 92747267005

METHOD BLANK: 4513596 Matrix: Water
Associated Lab Samples: 92747267003, 92747267004, 92747267005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	08/16/24 14:10	

LABORATORY CONTROL SAMPLE: 4513597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	415	104	80-120	

SAMPLE DUPLICATE: 4513598

Parameter	Units	92747267003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	141	141	0	10	

SAMPLE DUPLICATE: 4513599

Parameter	Units	92747305002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	93.0	87.0	7	10	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

QC Batch: 875570 Analysis Method: SM 2320B-2011
QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

METHOD BLANK: 4509947 Matrix: Water
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	5.0	08/14/24 16:17	
Alkalinity,Bicarbonate (CaCO ₃)	mg/L	ND	5.0	08/14/24 16:17	

LABORATORY CONTROL SAMPLE: 4509948

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	52.4	105	80-120	

LABORATORY CONTROL SAMPLE: 4509949

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	53.6	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4509950 4509951

Parameter	Units	92747247001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO ₃	mg/L	55.7	50	50	106	107	101	103	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4509952 4509953

Parameter	Units	92747247002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO ₃	mg/L	59.3	50	50	108	110	98	101	80-120	1	25	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

QC Batch: 875472 Analysis Method: EPA 9056A
QC Batch Method: EPA 9056A Analysis Description: 9056 IC anions 28 Days
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

METHOD BLANK: 4509648 Matrix: Water
Associated Lab Samples: 92747267001, 92747267002, 92747267003, 92747267004, 92747267005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	08/14/24 12:44	
Fluoride	mg/L	ND	0.10	08/14/24 12:44	
Sulfate	mg/L	ND	1.0	08/14/24 12:44	

LABORATORY CONTROL SAMPLE: 4509649

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	51.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4509650 4509651

Parameter	Units	92747247001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.5	50	50	58.2	59.1	101	103	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	101	103	90-110	2	10	
Sulfate	mg/L	7.6	50	50	58.6	59.6	102	104	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4509652 4509653

Parameter	Units	92747267005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.6	50	50	58.0	58.6	101	102	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	101	102	90-110	1	10	
Sulfate	mg/L	7.5	50	50	58.4	58.9	102	103	90-110	1	10	

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QUALIFIERS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.
A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

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

REPORT OF LABORATORY ANALYSIS

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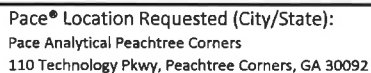
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747267

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92747267001	ARK-BC-0.8a	EPA 3010A	875955	EPA 6010D	876037
92747267002	ARK-BC-0.5.5	EPA 3010A	875955	EPA 6010D	876037
92747267003	ARK-BC-0.5.6	EPA 3010A	875955	EPA 6010D	876037
92747267004	ARK-BC-0.5.7	EPA 3010A	875955	EPA 6010D	876037
92747267005	ARK-BC-BR	EPA 3010A	875955	EPA 6010D	876037
92747267001	ARK-BC-0.8a	EPA 3005A	875521	EPA 6020B	875636
92747267002	ARK-BC-0.5.5	EPA 3005A	875521	EPA 6020B	875636
92747267003	ARK-BC-0.5.6	EPA 3005A	875521	EPA 6020B	875636
92747267004	ARK-BC-0.5.7	EPA 3005A	875521	EPA 6020B	875636
92747267005	ARK-BC-BR	EPA 3005A	875521	EPA 6020B	875636
92747267001	ARK-BC-0.8a	SM 2540C-2015	875851		
92747267002	ARK-BC-0.5.5	SM 2540C-2015	875851		
92747267003	ARK-BC-0.5.6	SM 2540C-2015	876190		
92747267004	ARK-BC-0.5.7	SM 2540C-2015	876190		
92747267005	ARK-BC-BR	SM 2540C-2015	876190		
92747267001	ARK-BC-0.8a	SM 2320B-2011	875570		
92747267002	ARK-BC-0.5.5	SM 2320B-2011	875570		
92747267003	ARK-BC-0.5.6	SM 2320B-2011	875570		
92747267004	ARK-BC-0.5.7	SM 2320B-2011	875570		
92747267005	ARK-BC-BR	SM 2320B-2011	875570		
92747267001	ARK-BC-0.8a	EPA 9056A	875472		
92747267002	ARK-BC-0.5.5	EPA 9056A	875472		
92747267003	ARK-BC-0.5.6	EPA 9056A	875472		
92747267004	ARK-BC-0.5.7	EPA 9056A	875472		
92747267005	ARK-BC-BR	EPA 9056A	875472		

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

WO#: 92747267



92747267

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Company Name:	ARCADIS - Atlanta	Contact/Report To:	Kelley Sharpe
Street Address:	2839 Paces Ferry Rd, Atlanta, GA 30339	Phone #:	(770)547-2978
		E-Mail:	kelley.sharpe@arcadis.com
		Cc E-Mail:	Arcadis-Atl + GA Power Distribution List
Customer Project #:			
Project Name:	Plant Arkwright-CCR Ash Pond	Invoice To:	Accounts Payable
		Invoice E-Mail:	georgiapowerinvoices@southernco.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	GPC82474-0003
	Plant Arkwright SWS	Quote #:	

Specify Container Size **										** Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other
Identify Container Preservative Type***										*** Preservative Types: (1) None, (2) HNO ₃ , (3) H ₂ SO ₄ , (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO ₄ , (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other
Analysis Requested										

Time Zone Collected: <input type="checkbox"/> AK <input type="checkbox"/> PT <input type="checkbox"/> MT <input type="checkbox"/> CT <input type="checkbox"/> ET				County / State origin of sample(s): Georgia				
Data Deliverables: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> EQUIS <input type="checkbox"/> Other _____				Regulatory Program (DW, RCRA, etc.) as applicable: Reportable <input type="checkbox"/> Yes <input type="checkbox"/> No				
				Rush (Pre-approval required): <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> Other _____			DW PWSID # or WW Permit # as applicable:	
				Date Results Requested: 5 Day TAT		Field Filtered (if applicable): <input type="checkbox"/> Yes <input type="checkbox"/> No		
				Analysis:				

[illegible][illegible]

Additional Instructions from Pace*: ARK-CSURF-ASSMT-2024S2	Collected By: (Printed Name) <i>Gravitt G</i> Signature: <i>[Signature]</i>
---	---

Customer Remarks / Special Conditions / Possible Hazards:					
# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

Relinquished by/Company: (Signature) <i>[Signature]</i>	Date/Time: 8/13/24 1325	Received by/Company: (Signature) <i>[Signature]</i>
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)

	Date/Time: 8/13/24 1325	Tracking Number:
	Date/Time:	Delivered by: <input type="checkbox"/> In-Person <input type="checkbox"/> Courier
	Date/Time:	<input type="checkbox"/> FedEx <input type="checkbox"/> UPS <input type="checkbox"/> Other
	Date/Time:	Page: 1 of 1



DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☒ Kernersville ☐Sample Condition
Upon Receipt

Client Name:

Project #:

WO#: 92747267

PM: MP

Due Date: 08/20/24

CLIENT: GA-ArcadAt!

Courier:

☐ Commercial☐ Fed Ex☐ UPS☐ USPS☒ Client☐ Pace☐ Other: _____Custody Seal Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No ☐ N/ADate/Initials Person Examining Contents: 8/24/24 owPacking Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen?

☐ Yes ☐ No ☒ N/A

Thermometer:

☐ IR Gun ID:

270

Type of Ice:

☒ Wet☐ Blue☐ None

Cooler Temp:

5.4

Correction Factor:

Add/Subtract (°C)

0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):

5.4

USDA Regulated Soil (☐ N/A, water sample)Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ NoDid samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4. 5 DAY TAT
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WS</u>				
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:



DC#_Title: ENV-FRM-HUN1-0083 v05_Sample Condition Upon Receipt

Effective Date: 05/24/2024

WO#: 92747267

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

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

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

***Check all unpreserved Nitrates for chlorine

Project #

PM: MP

Due Date: 08/20/24

CLIENT: GA-ArcadAtI

Laboratory Receiving Location: Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☒ Kernersville ☐

Client: ARCADIS-Atlanta Profile/EZ (Circle one) 3144736 Notes

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)		BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
CC																														
1			2																											
2			2																											
3			2																											
4			2																											
5			2																											
6																														
7																														
8																														
9																														
10																														
11																														
12																														

pH Adjustment Log for Preserved Samples

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

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

B.5 Data Quality Evaluation



DATA USABILITY SUMMARY

Steven Elliott (Stantec) reviewed three data packages from GEL Laboratories (GEL) for the analysis of water samples collected August 20, 2024, at the Georgia Power Arkwright Plant AP2 site. Samples were collected according to the Field Sampling Plan – Plant Arkwright (Amec Foster Wheeler, 2016).

Analyses requested included:

- SW-846 6020B – Metals, total and dissolved, by inductively coupled plasma - mass spectrometry (ICP/MS)
- SW-846 7470A – Mercury by manual cold-vapor
- EPA 300 Rev 2.1 – Chloride, fluoride, and sulfate by ion chromatography
- SM 2540C - 2015 – Total dissolved solids (TDS)
- EPA 353.2 – Nitrate/nitrite as nitrogen
- SM 2320B – Alkalinity, total, bicarbonate, carbonate
- EPA Method 904/ SW846 9320 Modified – Radium 228 by Gas Flow Proportional Counting
- EPA Method 903.1 Mod – Radium 226

Data were reviewed and validated as described in the field sampling plan and the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (November 2020). The results of the review/validation are discussed in this Data Usability Summary (DUS) and the associated Laboratory Data Review Checklists.

DATA REVIEW/VALIDATION RESULTS

Introduction

Ten (10) groundwater samples, one (1) field blank, one (1) equipment blank, and one (1) field duplicate sample were analyzed for one or more of the analyses listed above. Table 1 lists the field identifications cross-referenced to laboratory identifications. Table 2 is a summary of qualified data. Tables 3a through 3e summarize field duplicate results.

Analytical Results

The data packages contain a minimum of one quality control batch per analytical method analyzed. The quality control batch identifies the laboratory QC samples that correspond to the designated field samples. Not detected results are reported as less than the value of the method detection limit (MDL).

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody forms. The samples were received in the appropriate containers with the paperwork filled out properly. The laboratory sample condition upon receipt forms indicates all samples were received at a temperature of 2.0°C. All samples were analyzed within the technical holding time. No data were qualified.

Calibrations

Case narratives indicate Initial and continuing calibration verification data were within method acceptance criteria.

Blanks

Laboratory Method Blanks. No contamination was detected in any of the laboratory method blanks.

Field Blanks. Field blanks were analyzed for the full suite of sample analyses and all analytes were not detected with the following exceptions:

SDG 682093

- Chloride was detected in the blank ARK-AP2-EB-03 at a concentration below the laboratory Reporting Limit (RL). All associated sample results were reported with results greater than 10 times the blank concentration and therefore no qualification was necessary.
- Nitrate/nitrite was detected in the blank ARK-AP2-FB-03 at a concentration above the laboratory RL. Detected sample results reported with results less than 10 times the blank concentration have been qualified as estimated (J).

Laboratory Control Samples

Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries met the laboratory acceptance criteria for all analyses.

Matrix Spike/Matrix Spike Duplicates

Site-specific MS/MSD precision and accuracy results were within the laboratory acceptance criteria.

Laboratory Duplicates

Appropriate analytical duplicates were analyzed and RPDs were within the laboratory acceptance criteria.

Field Precision

One set of field duplicate samples was collected for this sampling event (see Table 3a for sample/duplicate identification and precision calculations). The calculated RPDs between sample and duplicate were within the QAPP acceptance criteria of 25% for all analytes detected above five times the RL. For results reported less than five times the RL, with a difference between sample and duplicate less than two times the RL are also considered acceptable (qualified "A*"). All field duplicate precision was considered acceptable with the following exception:

SDG 652690

- Results for nitrate/nitrate in the field duplicate pair ARK-ARAMW-8/ ARK-AP2-FD-03 were less than five times the RL and the difference between the two results was greater than two times the RL. Nitrate/nitrite has been qualified as estimated (J) in these sample.

Summary

The groundwater analytical data are usable for the purpose of determining current concentrations of COCs in this medium at the affected property. A summary of qualified data is presented in Table 2 below.

References:

Amec Foster Wheeler, 2016. Arkwright Field Sampling Plan. October.

United State Environmental Protection Agency (USEPA), 2020. National Functional Guidelines for Superfund Inorganic Methods Data Review. November.

Stantec
Georgia Power – Arkwright (AP-2)
Analytical Report Nos. 682093, 682097, 682098
August 2024

Table 1 – Cross-Reference between Laboratory and Field Identifications

Field Identification	Laboratory Identification	SDG	Analyses	Sample Date
ARK-ARGWA-19	682093001	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARAMW-9	682093010	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARGWA-20	682093002	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARAMW-7	682093008	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARGWC-22	682093004	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARGWC-21	682093003	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARGWC-23	682093005	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARAMW-1	682093006	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARAMW-2	682093007	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-ARAMW-8	682093009	682093	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/20/2024
ARK-AP2-EB-03	682093011	682093	6020B, 7470A, 300, 2540C, 353.2	08/20/2024
ARK-AP2-FD-03	682093012	682093	6020B, 7470A, 300, 2540C, 353.2	08/20/2024
ARK-AP2-FB-03	682093013	682093	6020B, 7470A, 300, 2540C, 353.2	08/20/2024
ARK-ARGWA-19	682097001	682097	903.1, 904	08/20/2024
ARK-ARAMW-9	682097010	682097	903.1, 904	08/20/2024
ARK-ARGWA-20	682097002	682097	903.1, 904	08/20/2024
ARK-ARAMW-7	682097008	682097	903.1, 904	08/20/2024
ARK-ARGWC-22	682097004	682097	903.1, 904	08/20/2024
ARK-ARGWC-21	682097003	682097	903.1, 904	08/20/2024
ARK-ARGWC-23	682097005	682097	903.1, 904	08/20/2024
ARK-ARAMW-1	682097006	682097	903.1, 904	08/20/2024
ARK-ARAMW-2	682097007	682097	903.1, 904	08/20/2024
ARK-ARAMW-8	682097009	682097	903.1, 904	08/20/2024
ARK-AP2-EB-03	682097011	682097	903.1, 904	08/20/2024

Stantec
Georgia Power – Arkwright (AP-2)
Analytical Report Nos. 682093, 682097, 682098
August 2024

Field Identification	Laboratory Identification	SDG	Analyses	Sample Date
ARK-AP2-FD-03	682097012	682097	903.1, 904	08/20/2024
ARK-AP2-FB-03	682097013	682097	903.1, 904	08/20/2024
ARK-ARGWA-19	682098001	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARAMW-9	682098010	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARGWA-20	682098002	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARAMW-7	682098008	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARGWC-22	682098004	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARGWC-21	682098003	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARGWC-23	682098005	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARAMW-1	682098006	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARAMW-2	682098007	682098	6020B (D) (Mg, Fe)	08/20/2024
ARK-ARAMW-8	682098009	682098	6020B (D) (Mg, Fe)	08/20/2024

Stantec
Georgia Power – Arkwright (AP-2)
Analytical Report Nos. 682093, 682097, 682098
August 2024

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification / Code	Reason for Qualification
ARK-ARAMW-8	Nitrate/nitrite	J / FD2	High FD absolute difference
ARK-AP2-FD-03	Nitrate/nitrite	J / FD2	High FD absolute difference
ARK-ARGWC-22	Nitrate/nitrite	J+ / BFH	Detected in FB
ARK-ARAMW-2	Nitrate/nitrite	J+ / BFH	Detected in FB

BFH – Blank Field High – detected in the field blank (FB) above the RL

FD2 - Field duplicate absolute difference does not meet quality control criteria

J – estimated result

J+ – The analyte was detected in an associated blank; estimated data with a high bias

Stantec
Georgia Power – Arkwright (AP-2)
Analytical Report Nos. 682093, 682097, 682098
August 2024

Table 3a – Field Precision

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD ^a	Qualified
ARK-ARAMW-8/ ARK-AP2-FD-03	Chloride	4.54	4.53	0.2%	A
	Fluoride	0.199	0.198	<5*RL, <2*RL	A*
	Sulfate	109	108	0.9%	A
	Boron	0.675	0.657	<5*RL, <2*RL	A*
	Barium	0.112	0.111	0.9%	A
	Calcium	79.2	77.4	2.3%	A
	Cobalt	0.00277	0.00298	<5*RL, <2*RL	A*
	Lithium	0.00586 J	0.0055 J	<5*RL, <2*RL	A*
	Iron	0.244	NA	NC	None
	Magnesium	33.7	NA	NC	None
	Molybdenum	0.195	0.187	<5*RL, <2*RL	A*
	Sodium	17.7	NA	NC	None
	Potassium	6.91	NA	NC	None
	Aluminum	0.0279 J	NA	NC	None
	Manganese	0.187	NA	NC	None
	Nitrate/nitrite	0.007 U	2.98	<5*RL, >2*RL	J
	TDS	422	438	3.7%	A
	Total Alkalinity	251	NA	NC	None
	Bicarbonate	251	NA	NC	None
	Radium 226	0.595	1.44 U	<5*RL, <2*RL	A*

^a RPD = ((SR - DR)*200)/(SR + DR)

A - Acceptable Data.

A* - Acceptable data where results were less than 5X the RDL and the difference between sample and duplicate was less than 2X the RDL.

J – Estimated detected.

NA – not analyzed

NC – not calculated

Appendix C

Well Installation Report



February 7, 2025

Attention: Mr. Joju Abraham, PG

Southern Company Services
241 Ralph McGill Blvd NE
Atlanta, GA 30308

**Reference: Piezometer Installation (ARAMW-10, ARAMW-11, and ARAMW-12) Report
Georgia Power Company – Plant Arkwright, Ash Pond 2 Dry Ash Stockpile
Macon, Georgia**

Dear Mr. Abraham,

Stantec Consulting Services Inc. (Stantec) is submitting this Piezometer Installation Report to Southern Company Services, Inc. (SCS) and Georgia Power Company (Georgia Power), which documents the construction of three piezometers at Plant Arkwright in Macon, Georgia (Site). The well installation was completed to meet the requirements promulgated in the United States Environmental Protection Agency (US EPA) coal combustion residuals (CCR) rule [40 Code of Federal Regulations (CFR) Part 257, Subpart D], specifically 40 CFR §257.91(e)(1) and Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10. The installation of the piezometers was conducted under the oversight and direction of Andreas Shoredits, a Georgia Registered Professional Geologist (PG) and completed between October and December 2024.

Piezometers were installed downgradient of Ash Pond 2 Dry Ash Stockpile (AP-2 DAS) near existing wells ARAMW-7 and ARAMW-8. Piezometer ARAMW-10 was installed approximately 35 feet to the west northwest of ARAMW-7, and ARAMW-11 was installed approximately 30 feet to the west northwest of ARAMW-7. Piezometer ARAMW-12 was installed approximately 12 feet to the north northwest of ARAMW-8. The piezometer construction details are included in Table 1 and the locations are shown on Figure 1. This report provides a summary of the drilling and installation activities for piezometers ARAMW-10, ARAMW-11, and ARAMW-12.

Piezometer Drilling Activities

Piezometers ARAMW-10, ARAMW-11, and ARAMW-12 were drilled and installed by SCS Civil Field Services (CFS) at the Site, between October 22 and December 5, 2024.

An experienced Stantec geologist was present on Site to oversee and record the drilling and piezometer construction activities under the supervision of a professional geologist registered to practice in Georgia. Drilling methods employed for borehole advancement included hollow stem auger (HSA) and wireline drilling techniques. The drilling equipment consisted of a CME 550 wheel-mounted drilling rig, equipped with 2.25-inch hollow stem augers and wireline PQ sized barrels for bedrock and fractured rock drilling. A 5.5-inch diameter steel outer-casing was installed into the overburden with the transition of boring advancement from unconsolidated materials into underlying bedrock. For boring ARAMW-11, no outer casing was utilized due to the boring terminating in overburden material and drilling was conducted using HSA technology. During drilling in overburden, unconsolidated material disturbed samples were collected using split spoon samplers. For drilling in partially weathered rock and competent rock continuous core

samples were collected. Samples were logged and photographed in the field for lithologic and soil strength properties. Subsurface boring logs are provided in Appendix A.

Borehole Geophysics

Borehole geophysics was conducted in the open hole interval of piezometer ARAMW-12 by ARM Geophysics (ARM). The purpose of the geophysical investigation was to identify the depth, foliation, and orientation of rock fractures as related to potential water-bearing zones to aid in determination of well screen length and placement for this boring. The geophysical logging was performed on November 14, 2024, and included the following methods: optical and acoustic televiwers (OTV and ATV), 3-arm caliper, and electromagnetic flowmeter (EMFM) under ambient condition. The results of logging the open bedrock borehole interval of 39.2-65.4 feet below ground surface (bgs) showed that water producing fractures may occur only within a narrow range of depth, at approximately 62-64 feet bgs, and with a low measurable flow rate between 0.078 to 0.095 gallons per minute. The report summarizing the results of geophysical borehole logging is included in Appendix B.

Piezometer Construction Activities

Piezometers were installed in the boreholes for ARAMW-10 and ARAMW-11 using factory-cleaned and sealed Schedule 40 polyvinyl chloride (PVC) products. Each well was constructed with a 10-foot section of 4-inch outer diameter (OD) and 2-inch inner diameter (ID), flush-threaded, 0.010-inch factory-slotted PVC U-Pack screen. The annulus of each U-Pack screen section was filled with No. 1 filter sand. The screen was placed at the target depth, with the remainder of the piezometer being constructed from 10-foot sections of 2-inch ID, flush-threaded, PVC casing riser. For ARAMW-10, the well bottom was installed approximately 16.7 feet above the borehole termination depth and the borehole sump was filled with 1/4" diameter coated bentonite pellets. A flush-threaded PVC end cap was placed on the bottom of each piezometer to provide a 0.5-foot sump/sediment trap. and the top of each piezometer extended to above grade.

For the ARAMW-12 boring, a piezometer was installed using a factory-cleaned and sealed Schedule 40 polyvinyl chloride (PVC) product constructed with 15 feet of 2-inch inner diameter (ID), flush-threaded, 0.010-inch factory-slotted PVC screen. The screen was placed near the bottom of the borehole, with the remainder of the piezometer being constructed from 10-foot sections of 2-inch ID, flush-threaded, PVC casing riser. A flush-threaded PVC end cap was placed on the bottom of the piezometer to provide a 0.5-foot sump/sediment trap, and the top of the piezometer extended above grade.

Following placement of the screen and casing, the annular space in each borehole adjacent to the screen was filled with US Standard Sieve size No. 1 filter pack sand as appropriate for the formation. The filter pack sand was added to each borehole and extended a minimum of 2 feet above the depth of the tops of the screens. A filter pack seal, composed of hydrated 1/4" diameter coated bentonite pellets, was placed on top of each filter pack. Sand pack/ filter pack material and bentonite pellets were tremied in place through the 6-inch steel outer casing for the bedrock piezometers ARAMW-10 and ARAMW-12, and through the hollow stem auger for the overburden piezometer ARAMW-11. Each bentonite seal was hydrated using potable water and allowed to cure for approximately two hours prior to any further well construction activities. After hydration of each bentonite seal, the remaining annular space was grouted with an AquaGuard® bentonite grout 30% solids mixture to approximately 2 feet below ground surface using a tremie method.



The surface completions for ARAMW-10 and ARAMW-11 consist of a flush-mounted manhole with an 8-inch diameter bolt-down steel cover that is set into a 3-foot by 3-foot wide by 4-inch-thick concrete well pad. The well head is capped with a locking well plug.

The surface completion for ARAMW-12 consists of a locked, 6-inch diameter aluminum protective casing and a 3-foot by 3-foot wide by 4-inch-thick concrete well pad with an engraved tag showing the piezometer name. The annular space of the aluminum protective casing was filled with pea gravel to approximately 2 inches from top of PVC. A weep hole was drilled into the lower side of the protective casing and a vent hole was drilled in the PVC riser near the locking plug placed on the well head. Construction details for the piezometers are shown on the piezometer installation logs in Appendix C.

Piezometer Development Activities

Development activities for the newly installed piezometers ARAMW-10 and ARAMW-11 was initiated on November 11, 2024, and completed on November 12, 2024. Well Development activities were performed by Stantec in general accordance with the Piezometer Development Procedures prepared by SCS (March 2016), and the US EPA Science and Ecosystem Support Division (SESD) Design and Installation of Piezometers (SESDGUID-101-R2, January 2018). The piezometer sump was initially surged to resuspend any settled material at the bottom of the well, after which the length of the screen interval was over-pumped using a Reclaimer pump system.

Development of well ARAMW-12 was attempted on December 11, 2024, by over-pumping and surging using a submersible Proactiv Tornado pump. The well, however, did not sufficiently recharge for development. Standard development practices were not possible due to lack of recharge, but water quality readings were collected.

During development activities, water quality measurements of pH, temperature, specific conductance, oxidation reduction potential (ORP), and dissolved oxygen (DO) were conducted utilizing a calibrated In-Situ AquaTroll® 400 multiparameter probe. Turbidity was measured using a Hach 2100Q portable turbidimeter. Final turbidity values below 5 nephelometric turbidity units (NTUs) were achieved during development of ARAMW-10 and ARAMW-11 and an adequate volume of groundwater had been removed to achieve stable water chemistry parameters. Water level measurements were collected using a decontaminated electronic water level indicator, referenced to a permanent marking at the top of the casing (black mark) and recorded to within 0.01 foot. Well development forms and calibration logs are included in Appendix D and geochemical data are summarized in Table 2.

Piezometer Survey

The newly installed piezometers along with existing AP-2 piezometers were surveyed on December 9, 2024, by an SCS CFS land surveyor registered in the state Georgia. The survey was completed with a positional tolerance of 0.10-foot for horizontal and 0.01-foot for vertical measurements. The top of the PVC casing was surveyed to 0.001-foot vertical tolerance and a marking was made on the PVC to use for reference during future measurements. Surveyed coordinates and elevations are presented on the subsurface boring log and piezometer installation log and in Table 1. The certified surveyor's report is attached as Appendix E.



Closing

Stantec appreciates the opportunity to assist SCS and Georgia Power with this project. Should you have any questions or require additional information, please contact the undersigned.

Respectfully,

Stantec Consulting Services Inc.



Andreas Shoredits, P.G.

Geologist
Andreas.Shoredits@stantec.com
(470) 371-9727



Jennifer L. Kolbe, Ph.D., P.E.

Senior Principal
jennifer.kolbe@stantec.com
(765) 418-8953

Attachments:

Figure 1 – 2024 Monitoring Well and Piezometer Location Map
Table 1 – Summary of Piezometer Construction
Table 2 – Piezometer Development Summary
Appendix A – Subsurface Boring Logs
Appendix B – Geophysical Record of Borehole ARAMW-12
Appendix C – Piezometer Installation Logs
Appendix D – Piezometer Development Forms
Appendix E – Certified Piezometer Survey
Appendix F – SCS Drilling Bond



CERTIFICATION STATEMENT

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences 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 judgements regarding groundwater monitoring and containment 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.



Andreas Shoredits, P.G.
Geologist



February 7, 2025
Date



ATTACHMENTS



TABLES

Table 1 – Piezometer Construction Details

Table 2 – Piezometer Development Summary



TABLE 1
SUMMARY OF PIEZOMETER CONSTRUCTION
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

Well	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (feet) ⁽²⁾	Ground Surface Elevation (feet) ⁽²⁾	Top of Screen Elevation (feet) ⁽³⁾	Screen Bottom Elevation (feet) ⁽³⁾	Screen Length (feet)	Total Well Depth (feet bls) ⁽⁴⁾	Groundwater Zone Screened	Hydraulic Location
Assessment Monitoring Wells											
ARAMW-10	11/9/2024	1063082.33	2438902.85	308.49	308.39	260.89	250.89	10.0	58.00	Bedrock	Downgradient
ARAMW-11	11/10/2024	1063077.03	2438902.96	308.09	308.02	278.02	268.02	10.0	40.50	Overburden	Downgradient
ARAMW-12	11/21/2024	1062906.98	2439199.15	309.08	305.80	255.90	240.90	15.0	65.40	Bedrock	Downgradient

Notes:

Well top of casing and ground surface surveyed by Southern Company Services Civil Field Services land surveyor on December 16, 2024.

bls - Below land surface

1. Horizontal locations referenced to Georgia State Plane West, North American Datum of 1983 (NAD83).
2. Vertical elevations are referenced to North American Vertical Datum of 1988 (NAVD88).
3. Screen elevations calculated using surveyed Ground Surface Elevations together with well drilling and construction logs.
4. Well depth based on well drilling and construction logs.

Table 2
PIEZOMETER DEVELOPMENT SUMMARY
Georgia Power Company - Plant Arkwright
Ash Pond 2 Dry Ash Stockpile
Macon, Georgia

Well	Date Started	Date Finished	Development Method	Measured Total Depth of Well (feet bTOC)	Initial Water level (feet bTOC)	Final Water Level (feet bTOC)	Total Volume Removed (gal)	pH (SU)	Specific Conductance (µS/cm)	Temp (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)
ARAMW-10	11/11/2024	11/12/2024	Reclaimer Pump	57.90	11.20	11.80	18.18 ^a	5.86	1,696	18.79	1.11	-17.4	0.29
ARAMW-11	11/12/2024	11/12/2024	Reclaimer Pump	40.50	11.27	11.80	12.84	5.63	1,770	19.22	4.03	-169.5	0.50
ARAMW-12	11/11/2024	11/11/2024	Proactive Tornado/ Bailer	68.82	13.04	68.80	9.00 ^b	7.48	290.27	17.53	132	-188.9	1.29

Notes:

^a On the initial development attempt of ARAMW-10 on 11/11/2024, 13.42 gallons of water were removed from the well.

^b Well water was evacuated

bTOC - below Top of Casing

gal - gallons

SU - Standard Units

uS/cm - microsiemens per centimeter

°C - degrees Celsius

NTU - nephelometric turbidity units

mV - millivolts

mg/L - milligrams per liter

ORP - oxidation-reduction potential







DO - dissolved oxygen

Temp - Temperature

FIGURE

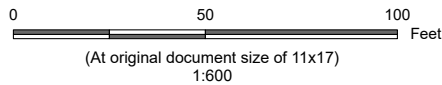




- Legend**
-  Detection Monitoring Well
 -  Assessment Monitoring Well
 -  Piezometer
 -  Beaverdam Creek (Approximate)
 -  Approximate Property Boundary
 -  Ash Pond 2 Dry Ash Stockpile (DAS) (approximate location)

Notes

- Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
- Data Sources: Ash Pond Boundaries, Monitoring Wells, Property Boundary, and Beaverdam Creek locations provided by Southern Company Services, Wood Environment & Infrastructure Solutions, and Stantec.
- Background: Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS, Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS Plant imagery provided by client and is dated 1/22/2024.



Project Location
Macon, Georgia

Client/Project
Georgia Power
Plant Arkwright Ash Pond 2 Dry Ash Stockpile

Figure No.
1

Title
2024 Monitoring Well and Piezometer Location Map

APPENDIX A

Subsurface Boring Logs





PROJECT NUMBER 175569434	DRILLING COMPANY Southern Company C.F.S.	BORING LOCATION N1063082.33, E2438902.85
PROJECT NAME Plant Arkwright	DRILLER S. Denty	COMPLETION Flush-mount with 3 ft x 3 ft pad
CLIENT Georgia Power	RIG TYPE/ METHOD CME 550/ HSA & wireline	SURFACE ELEVATION 308.39 ft
ADDRESS 5241 Arkwright Road, Macon, Ga	TOOL DIA. 5.63-in OD/ 2.25-in ID Aug, PQ core	WELL TOC 308.49 ft
LOCATION AP-2. Lower bench	BORING DEPTH 74.8 ft	COORD SYS NAD83, NAVD88

COMMENTS Started drilling on 10/22/2024 and completed drilling on 10/26/2024. Well construction completed on 11/21/2024 with installation of manhole, locking cover and concrete pad.

LOGGED BY A. Shoredits

CHECKED BY E. Smith

Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
1	0-1.5 (SPT01)		1-1-1	0.95	HSA w/ SPT			0.3-0.5 ft: CCR fly ash, blue grey Silty SAND, red, loose, moist, rootlets	SM		308
2											307
3											306
4	3.5-5.0 (SPT02)		3-2-2	1.35				SAA - No CCR, loose, moist			305
5											304
6											303
7											302
8											301
9	8.5-10 (SPT03)		2-4-4	1.4							300
10								CLAY trace fine grained sand, dark brown, non-plastic to low plasticity, soft, moist	CL		299
11											298
12											297
13											296
14	13.5-15.0 (SPT04)		WH-2-4	1.5				Sandy CLAY, grey, soft to medium stiff, medium plasticity, moist	CL-SC		295
15											294



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
15											293
16											292
17											291
18											290
19	18.5-20.0 (SPT05)		8-10-8	1.4				Silty SAND trace sub-rounded gravel and silt, brown/ grey/ tan, loose, wet, fine to coarse grained, micaceous, saprolitic	SP		289
20											288
21											287
22											286
23											285
24	23.5-25.0 (SPT06)		21-50/5	0.92							284
25	25.0-27.0 (SPT07)		50/5	0.42				Silty gravelly SAND, brown/ white, loose, dry, fine to coarse grained, saprolitic	SP-SM		283
26											282
27	27.0-29.0 (SPT08)		50/5	0.42							281
28											280
29	29.0-31.0 (SPT09)	ARAMW -10 -SOIL (29.0-31.0 ft)	50/5	0.42				Saprolite with very weathered rock lenses, dry			279
30											278
31	31.0-33.0 (SPT10)	ARAMW -10 -SOIL (31.0-33.0 ft)	28-50/3	0.75				31.6 ft: Very weathered rock lens, dry			277
32											276


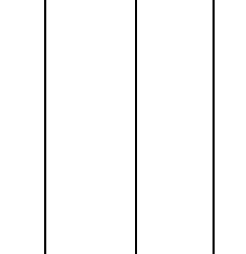


Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
33	33.0-35.0 (SPT11)		50/2	0.0							275
34											274
35											273
36											272
37	NS										271
38											270
39											269
40											268
41	NS										267
42											266
43											265
44											264
45	44.8-49.8 (P01)			5.0	WL w/ PQ core	76		Weathered rock, auger refusal at 42.5 ft. Temporary steel surface casing set to 44.1 ft. Gravel, sub-angular, fine to coarse grained Biotite gneiss, black/grey/white, mod to intensely fractured, 45° mineral banding, alternating qtz veins with dark biotite/hornfels zones, mod weathering 45.0-45.8 ft: 70° fracture, brown surface staining, mod weathering 46.0 ft: 45° fracture, med decomp, slight staining 46.5-46.8 ft: 2x45° bisecting fractures, staining, slight decomp 47.4-47.8 ft: 45° fracture, highly weathered zone, qtz veins w/ coarse sand on planes 48.0-48.1 ft: 45° fracture wide, mod weathering, coarse gravel SAA, slight to mod fracturing 49.1-49.6 ft: 80° healed fracture	PWR		263
46											262
47											261
48											260
49	49.8-54.8 (P02)			4.8		96		50.6-52.0 ft: 80° healed fracture			259
50											258



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
51											257
52								52.0 ft: 45° fracture, metallic red/ bn minerl inclusions 0.75-in dia			256
53											255
54								54.1 ft: 45° fracture, metallic minerals, slight weathering			254
55	54.8-56.8 (P03)	ARAMW-10-ROCK (55.7-55.9 ft) (545 g)		2.2		100		55.7 ft: 45° fractures, black fracture surface, micaceous fine sand on plane, slightly weathered		U-pack & annular sand pack	253
56								56.4 ft: Sub-horizontal fracture, brown/red staining, slight to mod weathering, very narrow aperture			252
57	56.8-59.8 (P04)			2.9		87		57.1 ft: 45° fracture, green minerals, mod disintegration 57.6 ft: 45° fracture, green minerals, slight weathering			251
58								58.8 ft: 45° fracture, green minerals, mod disintegration			250
59								59.2 ft: Partial 45° fracture, brown staining along edge			249
60	59.8-64.8 (P05)			5.1		89		59.9-60.0 ft: qtz vein			248
61								61.1 ft: 45° fracture, slight brown staining			247
62								62.4 & 62.6 ft: 45° fracture, slight brown staining			246
63											245
64		ARAMW-10-ROCK (64.3-64.5 ft) (480 g)						63.9 ft: 45° fracture, slight brown staining		Bentonite sump backfill	244
65	64.8-69.8 (P06)			5.0		91		64.4 ft: 45° fracture, slight brown staining, metallic minerals present 64.6-64.8 ft: qtz vein			243
66								66.1 & 66.4 ft: 45° fracture, slight brown staining			242
67											241
68								67.6 ft: 45° fracture, slight brown staining, slight decomp.			240



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
69	69.8-74.8 (P07)			4.7		100		70.6 ft: Partial 45° fracture, metallic minerals present 73.0-73.8 ft: 70° healed fracture, dark fine grained crystals w/ intense foliation, metallic minerals present		 Bentonite sump backfill	239
70											238
71											237
72											236
73											235
74											234
75								BOH 74.8 ft bgs. Boring terminated at a predetermined depth.			233
76											232
77											231
78											230
79											229
80											228
81											227
82											226
83											225
84											224
85											223
86											222



PROJECT NUMBER 175569434	DRILLING COMPANY Southern Company C.F.S.	BORING LOCATION N1063077.03, E2438902.96
PROJECT NAME Plant Arkwright	DRILLER A. Castleberry	COMPLETION Flush-mount with 3 ft x 3 ft pad
CLIENT Georgia Power	RIG TYPE/ METHOD CME 550/ HSA	SURFACE ELEVATION 308.02 ft
ADDRESS 5241 Arkwright Road, Macon, Ga	TOOL DIA. 5.63-in OD/ 2.25-in ID Augers	WELL TOC 308.09 ft
LOCATION AP-2. Lower bench	BORING DEPTH 40.5 ft	COORD SYS NAD83, NAVD88

COMMENTS Started and completed drilling on 11/10/2024. Well construction completed on 11/21/2024 with installation of manhole, locking cover and concrete pad. Lithologic description from 0.0 to 33.5 based on adjacent boring ARAMW-10.

LOGGED BY A. Shoredits

CHECKED BY E. Smith

Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
1					HSA w/ SPT			0.3-0.5 ft: CCR fly ash, blue grey Silty SAND, red, loose, moist, rootlets	SM		308
2											307
3											306
4											305
5											304
6											303
7											302
8											301
9											300
10											299
11											298
12											297
13											296
14											295
15											294



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
15											293
16											292
17											291
18											290
19								Silty SAND trace sub-rounded gravel and silt, brown/ grey/ tan, loose, wet, fine to coarse grained, micaceous, saprolitic	SP		289
20										Bentonite grout	288
21											287
22											286
23											285
24											284
25								Silty gravelly SAND, brown/ white, loose, dry, fine to coarse grained, saprolitic	SM		283
26											282
27										Bentonite plug	281
28											280
29								Saprolite with very weathered rock lenses, dry			279
30										U-pack & annular sand pack	278
31								31.6 ft: Very weathered rock lens, dry			277
32											276



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
33											275
34	33.5-35.0 (SPT01)	ARAMW-11 -SOIL (33.5-35.0 ft)	44-50/2	0.67				Silty SAND with sub-rounded to sub-angular gravel, brown/ black, dense, wet, fine gravel to fine sand			274
35											273
36											272
37											271
38											270
39	38.5-40.0 (SPT02)		50/2	0.0							269
40											268
41								BOH 40.5 ft bgs. Boring terminated at auger refusal depth.			267
42											266
43											265
44											264
45											263
46											262
47											261
48											260
49											259
50											258



PROJECT NUMBER 175569434	DRILLING COMPANY Southern Company C.F.S.	BORING LOCATION N1062906.98, E2439199.15
PROJECT NAME Plant Arkwright	DRILLER S. Denty	COMPLETION Stick-up with 3 ft x 3 ft pad
CLIENT Georgia Power	RIG TYPE/ METHOD CME 550/ HSA & wireline	SURFACE ELEVATION 305.80 ft
ADDRESS 5241 Arkwright Road, Macon, Ga	TOOL DIA. 5.63-in OD/ 2.25-in ID Aug, PQ core	WELL TOC 309.08 ft
LOCATION AP-2. Lower bench	BORING DEPTH 65.4 ft	COORD SYS NAD83, NAVD88

COMMENTS Started drilling on 10/28/2024 and completed drilling on 11/8/2024. Well construction completed on 11/21/2024 with installation of 6-in stick-up protective cover and concrete pad.

LOGGED BY A. Shoredits

CHECKED BY E. Smith

Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
1	0-1.5 (SPT01)		3-4-4	1.3	HSA w/ SPT			Silty SAND (Fill), red/ brown, loose, moist, rootlets, fine grained, grass cover 0.7-0.8 ft: Gravel seam	SM GS		305
2								Silty SAND (Fill), red/ brown, loose, dry, trace clay	SM-CL		304
3								Medium dense with some clay			303
4	3.5- 5.0 (SPT02)		4-4-6	0.5							302
5											301
6											300
7											299
8											298
9	8.5- 10 (SPT03)		1-1-1	1.4				Sandy CLAY, dark grey, soft, medium to high plasticity, moist, fine grained	CL-SC		297
10											296
11											295
12											294
13								Gravelly SAND, brown/ grey, loose, wet, coarse grained	SW		293
14	13.5- 15.0 (SPT04)		3-5-6	1.5				CLAY, grey, medium stiff, high plasticity, wet	CH		292
								Gravel, brown/ tan, loose, wet, angular, fine grained with medium sand mixed in	GS		
15								Silty gravelly SAND, brown/ white, loose, moist, fine to coarse grained, micaceous, saprolitic	SM		291



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft) 0	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
16											290
17											289
18											288
19	18.5-20.0 (SPT05)	ARAMW-12-SOIL (18.5-20.0 ft) (202 g)	30-25-50/3	1.2							287
20											286
21											285
22											284
23											283
24	23.5-25.0 (SPT06)		20-49-50/1	1.1							282
25											281
26											280
27											279
28											278
29	28.5-30.0 (SPT07)		16-34-29	1.5				29.2-29.4 ft: Qtz gravel lens, white, loose, fine grained, micaceous, saprolitic			277
30											276
31											275
32											274
33											273



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft)	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
34	33.5-35.0 (SPT08)		6-20 -50/4	1.3							272
35											271
36								Weathered rock (drilling response)	PWR		270
37	36.9-42.1 (P01)			5.2		100		Biotite gneiss, black/ grey/ white, slightly weathered, 45° mineral banding, alternating quartz veins with dark biotite/ hornfels zones	-		269
38					WL w/ PQ core						268
39		ARAMW-12 -ROCK (39.1-39.6 ft) (500 g)						39.0-39.6 ft: 70° frac, brown surface staining, moderate weathering, dark brown to black weathered nodules, adjacent re-mineralized healed fractured		Bentonite grout	267
40											266
41											265
42	42.1-46.9 (P02)			4.7		100		43.0-43.3 ft: Quartz vein, 0.1 ft thick			264
43											263
44											262
45											261
46										Bentonite plug	260
47	46.9-51.9 (P03)			4.8		100					259
48											258
49											257
50										U-pack & annular sand pack	256
51											255



Depth (ft)	Samples (ft)	Soil sample ID & depth taken (ft)	Blow counts	Recovery (ft) 0	Drilling Method	RQD (%)	Graphic Log	Material Description	USCS	Well Diagram	Elevation (ft)
52	51.9-56.9 (P04)			5.3		100		Amphibolite biotite gneiss, black/ dark grey, fine crystalline			254
53											253
54											252
55											251
56	56.9-61.9 (P05)			4.8		100		57.0-57.6 ft: Quartz vein, white, 0.1-0.3 ft wide, green mineral discoloration, pocked surface features			250
57											249
58											248
59											247
60	61.9-65.4 (P06)	ARAMW-12-ROCK (59.6-59.9 ft) (608 g)		3.7		100		61.8-62.4 ft: 70° Partial to fully healed fracture			246
61											245
62											244
63											243
64		ARAMW-12-ROCK (64.3-64.4 ft) (493 g)						64.2 ft: Mineral foliation direction change, possible joint			242
65											241
66								BOH 65.4 ft bgs. Boring terminated at a predetermined depth.			240
67											239
68											238
69											237
											236

APPENDIX B

Geophysical Record of Borehole ARAMW-12





December 17, 2024

Ms. Jennifer L. Kolbe
Stantec
10745 Westside Way
Suite 250
Alpharetta, GA 30009-7640

Subject: Results of Geophysical Borehole Logging
One Borehole (ARAMW-12)
5241 Arkwright Road
Macon, Georgia 31210
ARM Project: 24012142

Dear Ms. Kolbe,

ARM Geophysics (ARM) is pleased to present this letter report that summarizes the results of geophysical borehole logging performed at the above referenced site on November 14, 2024. The objective of the logging was to identify and measure the depth and orientation of fractures and foliation planes and possible water-bearing zones in the above-mentioned borehole. To achieve these objectives, ARM acquired standard borehole logs and images.

LOGGING METHODS

The logs that ARM completed for this investigation include:

Optical Televiwer (OTV)
Acoustic Televiwer (ATV)

3-Arm Caliper
Electromagnetic Flowmeter - EMFM (Ambient)

ARM has provided a summary of these logging methods in Attachment A. ARM acquired the televiwer images and standard logs using a Matrix acquisition system manufactured by Mount Sopris Instrument Company. The EM flowmeter was collected using a System VI acquisition system manufactured by Century Geophysical, LLC.

INTERPRETATION

BASIC LOG DESCRIPTIONS

The geophysical borehole logs acquired during this investigation are presented in Attachment B. All log depths are referenced to ground surface as indicated in the header of each log. Much of the acquired data are presented as standard curves that represent the change in measured parameter with depth. The format of the televiwer logs is discussed in the following paragraphs.

The televiewer logs contain borehole images and structural information obtained from both the OTV and ATV tools. The *Optical Image*, *Acoustic Amplitude*, and *Acoustic Travel Time* tracks are “unwrapped” photographic images of the borehole wall (Figure 1). In this case, the cylindrical borehole surface is unzipped along the north azimuth and unrolled to a flat strip. The compass orientation (with respect to true north) is presented at the top of the log. The unwrapped format is distorted like any projection of a curved surface on a flat one. Horizontal and vertical planes will be undistorted. However, dipping planes will be represented as a sine wave: the greater the dip, the greater the wave amplitude.

The Plane Projection track presents the fracture signatures that are digitized from the unwrapped *Optical Image*, *Acoustic Amplitude*, and *Acoustic Travel Time* tracks. The *Dip & Dip Direction* log is a presentation in which the vertical axis is depth and the horizontal is dip angle from 0° to 90°. As shown in Figure 2, the dip direction is indicated by the orientation of the tadpole tail, measured in a clockwise direction from north.

INTERPRETATION OF STRUCTURAL DIAGRAMS

The structural data are presented on polar and rose diagrams for statistical analysis and pattern visualization. Polar diagrams are used in this report to plot the dip and dip direction of planar features. Zero-degree dip is represented at the center of the diagram and 90° at the circumference. The dip direction is indicated by the compass azimuth, measured clockwise from north (0°), as shown in Figure 3. This format is sometimes referred to as a dip vector plot, but it is essentially the same as a stereonet with an upper hemisphere projection.

The rose diagram graphically illustrates the strike distribution of a set of planes. Radiating rays are drawn with lengths proportional to number of strike measurements within each 10° sector. It is important to recognize that in this report, the polar diagram represents dip and dip direction, whereas the rose diagram represents strike. Using the right-hand-rule convention, strike equals the dip direction minus 90°.

RESULTS AND DISCUSSION

ORIENTATION ANALYSIS OF PLANAR FEATURES

Both optical and acoustic televiewer images were used to measure the depth and orientations fracture planes. The digitized planar features were corrected for borehole deviation and magnetic declination. The measured plane projections and orientations are shown in the plane projection log. A tabulated listing of the fracture orientations is presented in Attachment C. Stereographic analysis was performed on the planar orientation data acquired from the image log. A listing of the calculated mean orientations of all fracture planes are presented in Table 1. The results from the borehole are presented in the polar and rose diagrams, and charts shown in Figures 4 through 8. Predominant groups or “sets” are indicated by the clustering of data points in the polar diagrams.

Figure 4 presents polar diagrams showing the dip and dip direction of all planes measured during this investigation. ARM has classified the planes by symbols corresponding to foliation and fracture plane sets.

ARM used statistical contouring to identify windows in which to calculate the mean orientation of all foliation and fracture planes. Figures 5 present polar diagrams with statistical contouring of all fracture plane orientations. The mean fracture plane dip/dip directions are shown to the right of the diagram. The rose diagrams in Figures 6 show a predominant ENE/WSW strike direction.

Figures 7 present polar diagrams with statistical contouring of all fracture plane orientations. The mean fracture plane dip/dip directions are shown to the right of the diagram. Similarity in the foliation set and fracture set orientations suggest the latter may be foliation partings. The rose diagrams in Figures 8 show a predominant ENE/WSW strike direction.

The mean orientations for all foliation and fracture planes are shown in Table 1.

Table 1: Statistical mean of dip and dip direction of foliation and fracture planes.

Planes	Dip	Dip Direction	Strike/Dip
Foliation Set	7	156	N66E/7SE
Fracture Set	8	134	N44E/8SE

INTERPRETATION OF WATER PRODUCING OR RECEIVING ZONES

Water producing or receiving zones are typically identified in the acquired logs by a combination of the following parameters:

- A. Start or increase in upward or downward fluid flow identified by heat pulse flowmeter data suggests water-producing zone.
- B. End or decrease in upward or downward fluid flow identified by heat pulse flowmeter data suggests water-receiving zone.
- C. Open fractures observed in televiewer data.
- D. Deflections in caliper curve (suggests fractures).

Table 2 presents the interpreted flow zones (under ambient conditions) based on the indicators above. The most convincing evidence of water producing or receiving zones are flowmeters, fluid temperature, and fluid resistivity deflections since they can indicate flow in the borehole. Fractures observed in televiewer images or caliper curves can indicate water-bearing zones although the evidence is more indirect. A fracture may be observed in the borehole wall that may have been opened or enlarged during the drilling process but may be tight and contain little or no water a short distance into the formation. A combination of the above indicators provides the highest level of confidence for identifying water-bearing zones.

Table 2: Interpreted water producing or receiving zones and indicators under ambient conditions. Letters in the Indicators column correspond to the selection parameters shown above.

Borehole	Depth (Feet)	Indicators	Type
ARAMW-12	44-46	B, C	Receiving zone
ARAMW-12	62-64	A, C	Producing zone

Table 3 presents the directional flow of each borehole using the electromagnetic flowmeter.

Table 3: Observed directional flow in ARAMW-12 under ambient conditions.

Borehole	Upward Flow (Ambient)	Downward Flow (Ambient)
ARAMW-12		X

CLOSING

The data collection and interpretation methodologies used in this investigation are consistent with standard practices applied to similar geophysical investigations. The correlation of geophysical responses with probable subsurface features is based on the past results of similar surveys although it is possible that some variation could exist at this site.

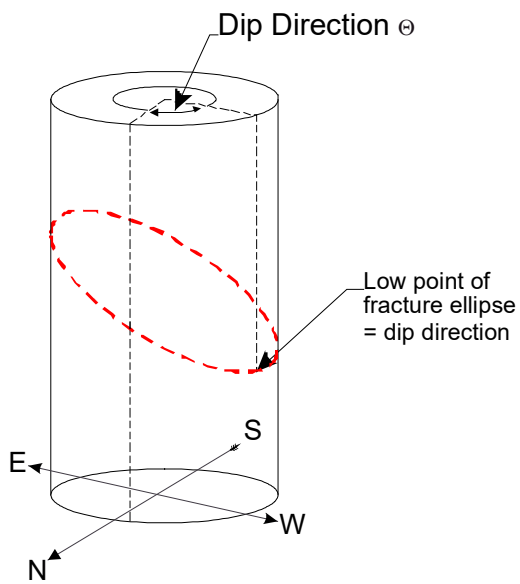
Please contact us if you have any questions regarding this survey. We appreciate your business and look forward to working with you again.

Kind regards,
ARM Geophysics

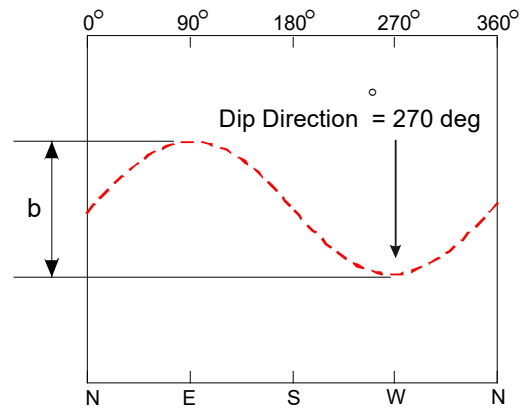


Duro Rajkovic, P.G.
Senior Geophysicist

FIGURES



Unwrapped View



$$\text{Dip} = \arctan \frac{b}{\text{diameter}}$$

$$\text{Strike} = \Theta \pm 90$$

Figure 1: Diagram illustrating unwrapped view of fracture signature.

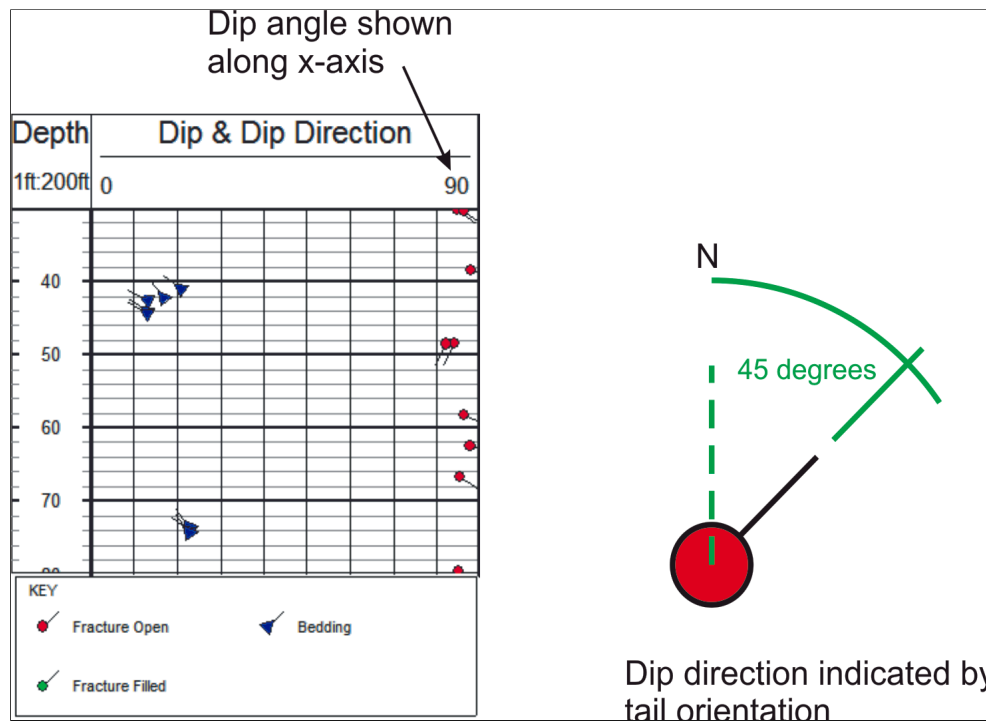
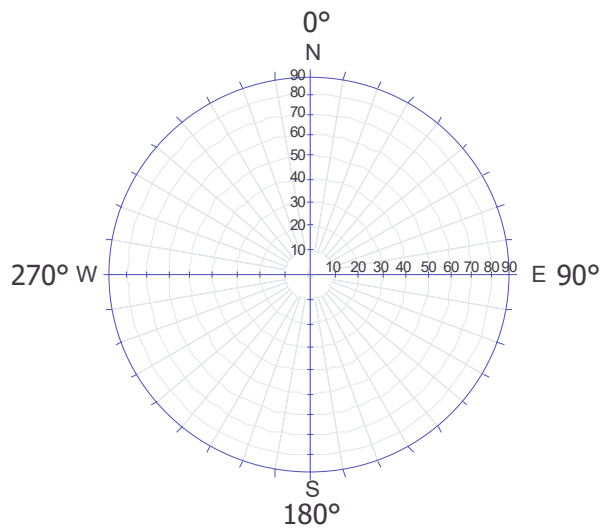
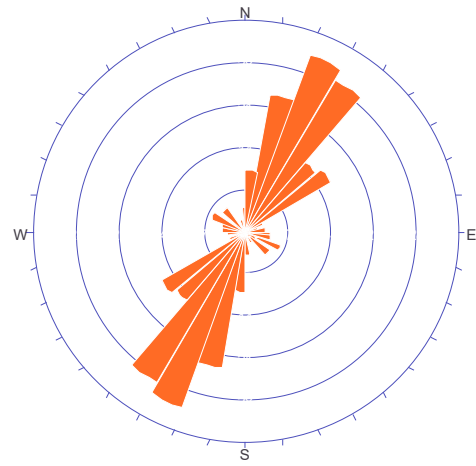


Figure 2: Dip & dip direction determination from the tadpole plot.



Polar Diagram



Rose Diagram

Figure 3: Example polar and rose diagrams. Polar diagram is used in this report for plotting dip and dip direction. Rose diagrams are used for plotting the frequency or number of strike measurements per sector.

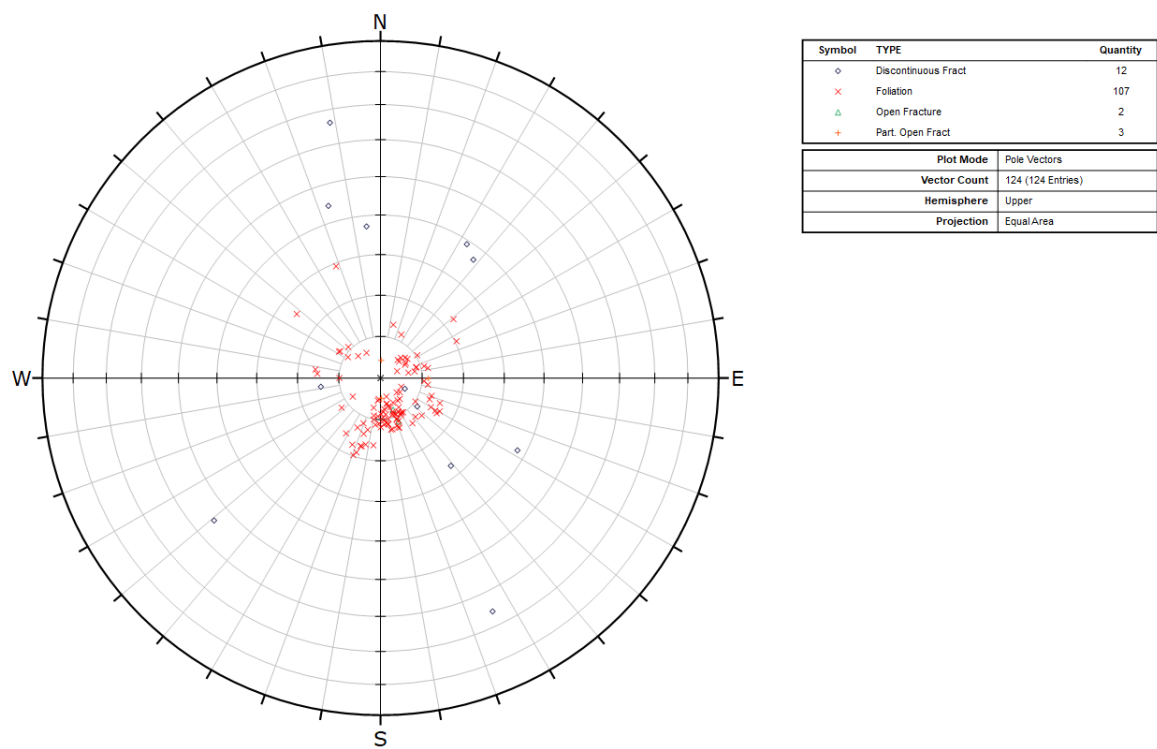


Figure 4: A polar diagram plotting dip and dip direction of all planes categorized by plane type.

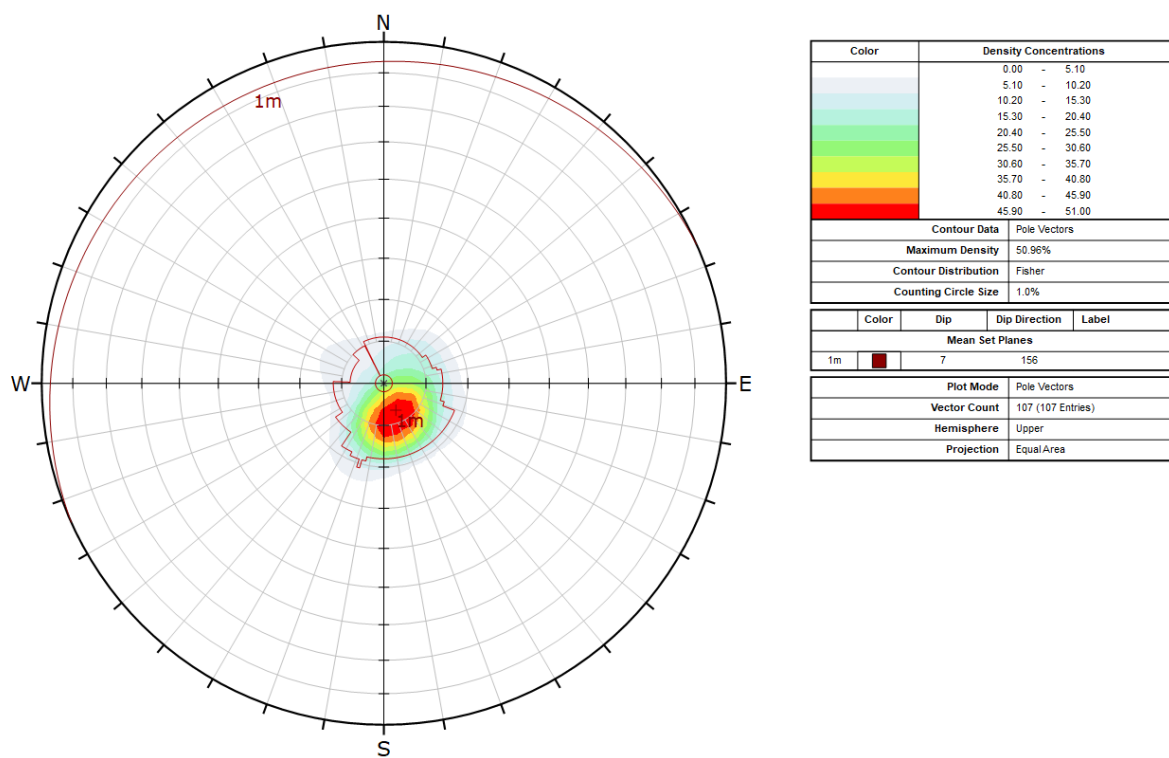


Figure 5: A polar diagram with statistical contouring of all foliation planes. The calculated mean dip angle and direction is shown at the right of the diagram.

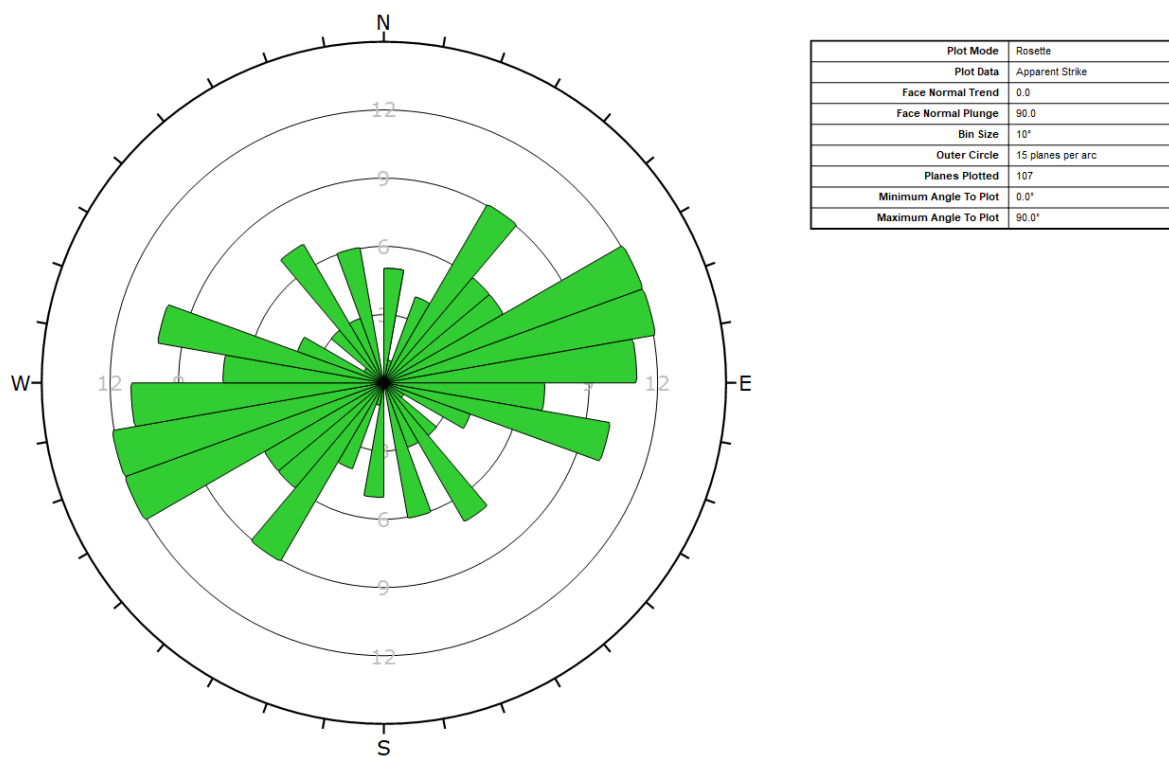


Figure 6: A rose diagram illustrating strike distribution of all foliation planes.

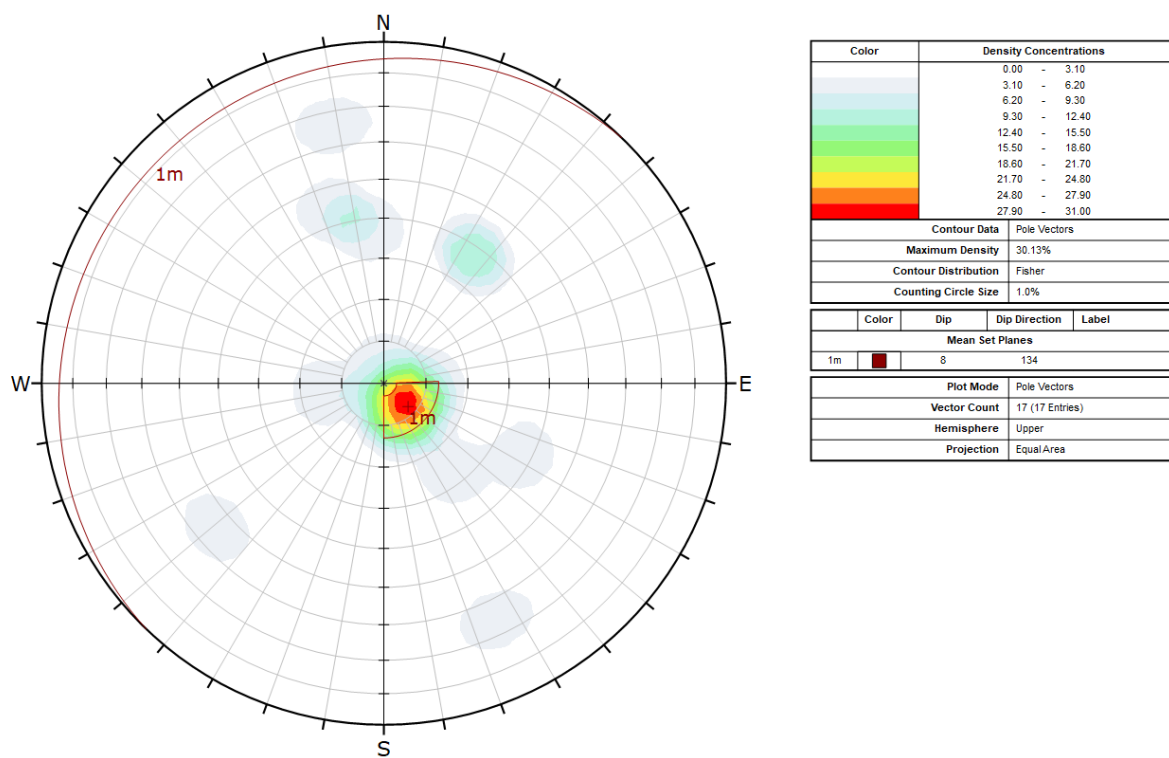


Figure 7: A polar diagram with statistical contouring of all fracture planes. The calculated mean dip angle and direction is shown at the right of the diagram.

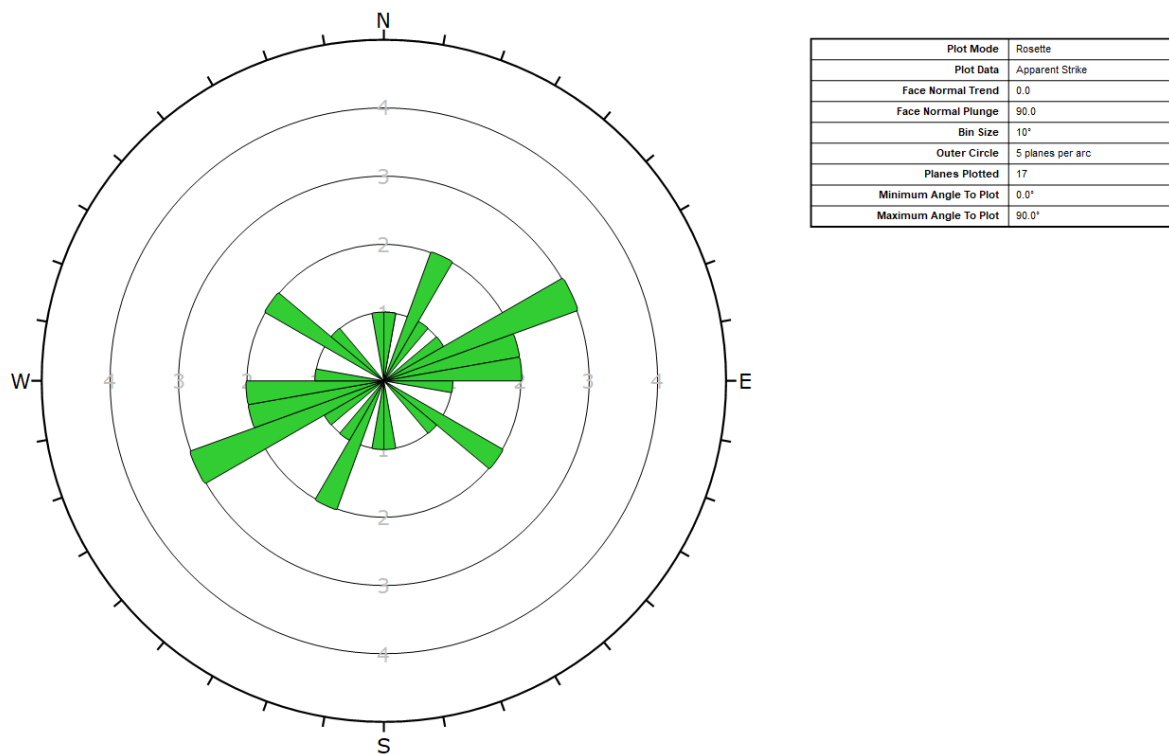


Figure 8: A rose diagram illustrating strike distribution of all fractures.

ATTACHMENT A
LOGGING METHODS

APPENDIX A: OVERVIEW OF LOGGING METHODS

CALIPER LOGS

The caliper log measures variations in borehole size as a function of depth in a well. Some example responses of in a caliper log is shown in Figure A- 1 (Rider, 2002¹) The log data enables (a) the detection of competent or fractured geologic units, (b) the location of washouts or tight zones, (c) the optimal placement of well screen, sand, and bentonite, and (d) the establishment of appropriate borehole correction factors to be applied to other well log curves. Further, when run in combination with other logs, the caliper log may be an indicator of lithologic makeup and degree of consolidation. The typical caliper response in a fractured, weathered, or karstic unit is a relatively abrupt increase in borehole size.

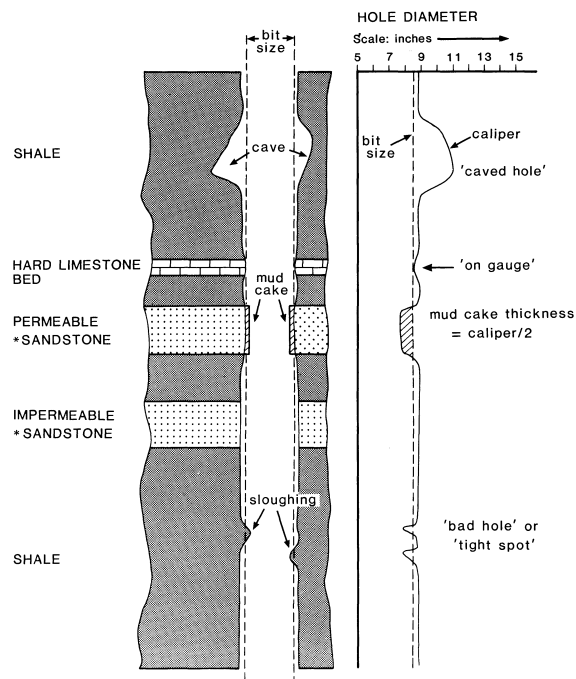


Figure A- 1: The caliper log showing some typical responses. (From Rider, 2002).

SPONTANEOUS POTENTIAL (SP) LOGS

The SP log measures the natural voltages that are created within the borehole due to the presence of borehole fluids, formation fluids, and formation matrix materials. It is recorded by measuring the difference in electrical potential in millivolts between an electrode in the borehole and a grounded electrode at the surface. The SP log is commonly used to 1) detect permeable beds, 2) detect boundaries of permeable beds, 3) determine formation water resistivity, and 4) determine the volume of shale in permeable beds. The constant SP readings observed in thicker shale units define the shale base line, a reference line from which further formation matrix and formation fluid property calculations may be completed. Although this log is consistently used in oil and gas applications, its effectiveness in water wells is limited since the method requires a contrast in salinity between borehole and formation fluids (Figure A- 2). This condition is often not met in ground water wells.

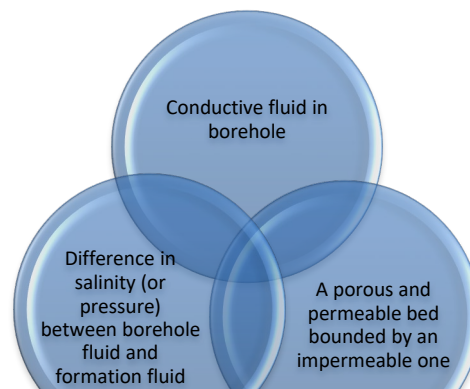


Figure A- 2: Conditions required to produce an SP response.

1 Rider, M. (2006) The Geological Interpretation of Well Logs, *Rider-French Consulting, Ltd.*, 280pp.

The SP log can be qualitatively used for permeability recognition. SP deflections from the shale base line commonly indicate the presence of a permeable bed. The magnitude and direction of the deflection is dependent upon the relative resistivity (or salinity) values of the borehole fluid and the formation fluid. If the formation fluid resistivity is less than the borehole fluid resistivity, then the relative SP values will decrease in a porous, coarse-grained unit. Alternately, if the formation fluid resistivity is greater than the borehole fluid resistivity, the relative SP values will increase in the same body, and the curve shape is referred to as a "reversed SP". If both fluid resistivities are equal, no SP deflection will occur.

GAMMA RAY LOGS

The gamma ray log is a passive instrument that measures the amount of naturally occurring radioactivity from geologic units within the borehole. Commonly occurring radioelements include potassium, thorium, and uranium; the two former elements are predominant within a common fine-grained rock sequence. The gamma ray log is also an excellent lithologic indicator because fine-grained clays and shales contain a higher radioelement concentration than limestones or sands. Gamma ray values are often used to assess the percentage of clay materials (indurated or non-indurated) that are present within a formation by utilizing empirically derived equations and sand-shale base line information.

NORMAL RESISTIVITY LOGS

Resistivity is a measure of how well an electric current passes through a material. Formation resistivity is an intrinsic property of rocks and depends on the porosity and resistivity of the interstitial fluid and rock matrix. The spacing between the transmitter and receiver on the tool determines the depth of investigation into the surrounding formation; the greater the spacing, the deeper the penetration of electrical current into the formation.

In sedimentary rocks, the resistivity values of shales (5 - 30 ohm-m) is generally lower than the resistivity of sandstone (30 – 100 ohm-m), which is lower than the resistivity limestone (75 – 300 ohm-m). The resistivity log often shows a picture of the overall depositional sequence in sedimentary environment. Resistivity of igneous and metamorphic rocks is extremely high when compared to resistivity in sedimentary rocks, with values that are commonly thousands of ohm-meters. Example resistivity log responses are shown in Figure A- 4.

FLUID RESISTIVITY LOGS

Fluid resistivity, which is the reciprocal of fluid conductivity, provides data related to the concentration of dissolved solids in the fluid column. Although the quality of the fluid column may not reflect the quality of adjacent

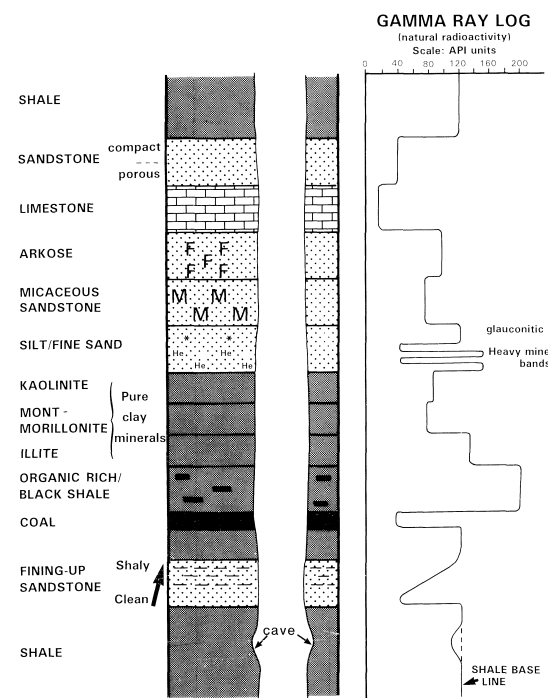


Figure A- 3: Characteristic gamma ray responses. (From Rider, 2002).

interstitial fluids, information can be quite useful when combined with other logs. For example, change in fluid resistivity associated with a water-producing zone that is corroborated by other logs may indicate the inflow of ground water.

SINGLE-POINT RESISTANCE LOGS

Single point resistance measurements are made by passing a constant current between two electrodes and recording the voltage fluctuations as the probe is moved up the borehole. The resistance variations measured in the borehole is primarily due to variations in the immediate vicinity of the downhole electrode.

The resistance log is strongly affected by the resistance of the drilling fluid and variations in borehole diameter. It is extremely useful for detecting fractures in boreholes with relatively constant diameter. In sedimentary environments, the resistance log generally follows the variations in resistivity of the formation. Shales in clay generally exhibit low values, sandstones have intermediate values, while coal and limestone beds have high resistance values.

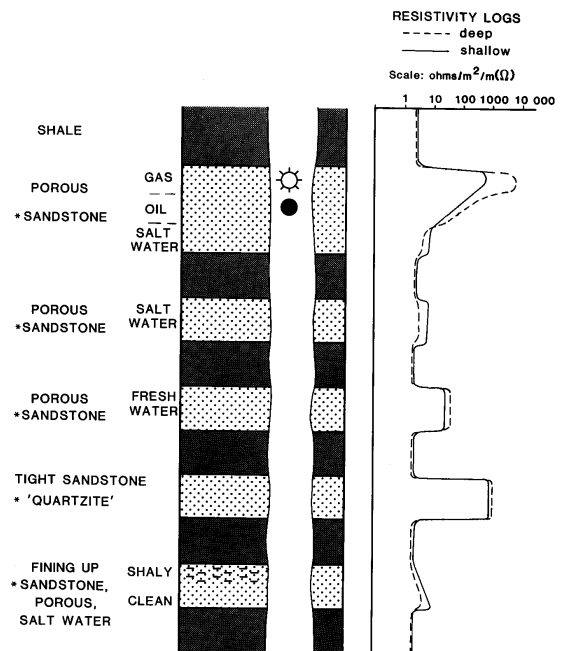


Figure A-4: Characteristic resistivity responses. (From Rider, 2002)

TEMPERATURE LOGS

Temperature logs measure the change in fluid temperature within the borehole as a function of depth. This log can indicate the location of water-producing strata or fracture zones within the well. The inherent assumption of this technique is that the fluids entering the borehole from water producing zones are either cooler or warmer than the fluid in the borehole. In this case, it is possible to relate a temperature anomaly to a depth range in which waters of different temperature are emanating from a water-producing/receiving or fractured lithologic unit.

HEAT PULSE FLOWMETER (HPFM) LOGS

The heat pulse flowmeter measures the vertical flow rates within a borehole. The log may be used to identify contributing fracture zones under natural and pumping conditions. The system operates by heating a wire grid that is located between two thermistors. The heated body of water moves toward one of the thermistors under the effect of the vertical component of flow within the well. Positive and negative values on the log represent upward and downward flow, respectively. Measurements are recorded while the tool is stationary and the logs are presented as a bar graph (mud log) as shown in Figure A-5.

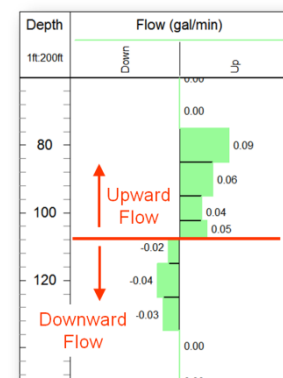


Figure A-5: Example heat pulse flowmeter log.

A number of techniques have been attempted for measuring horizontal flow in wells without much success. The techniques may not represent the true hydrogeologic conditions due to variations in flow caused by the well.

OPTICAL TELEVIEWER (OTV) LOGS

The optical televiewer probe combines the axial view of a downward looking digital imaging system with a precision ground hyperbolic mirror to obtain an undistorted 360° view of the borehole wall. The probe records one 360° line of pixels at 0.003-ft depth intervals. The sample circle can be divided into 720 or 360 radial samples to give 0.5° or 1° radial resolution. For this investigation, the highest radial resolution (0.5°) was used. The line of pixels is aligned with respect to True North and digitally stacked to construct a complete, undistorted, and oriented image of the borehole walls. The data are 24-bit true color and may be used for lithologic determination as part of the interpretation. Since the acquired image is digitized and properly oriented with respect to borehole deviation and tool rotation, it allows data processing to provide accurate strike and dip information of structural features. The borehole image is often shown as an “unwrapped” 360° image in which the cylindrical borehole image is sliced down the northern axis and flattened out as shown in Figure A- 6.

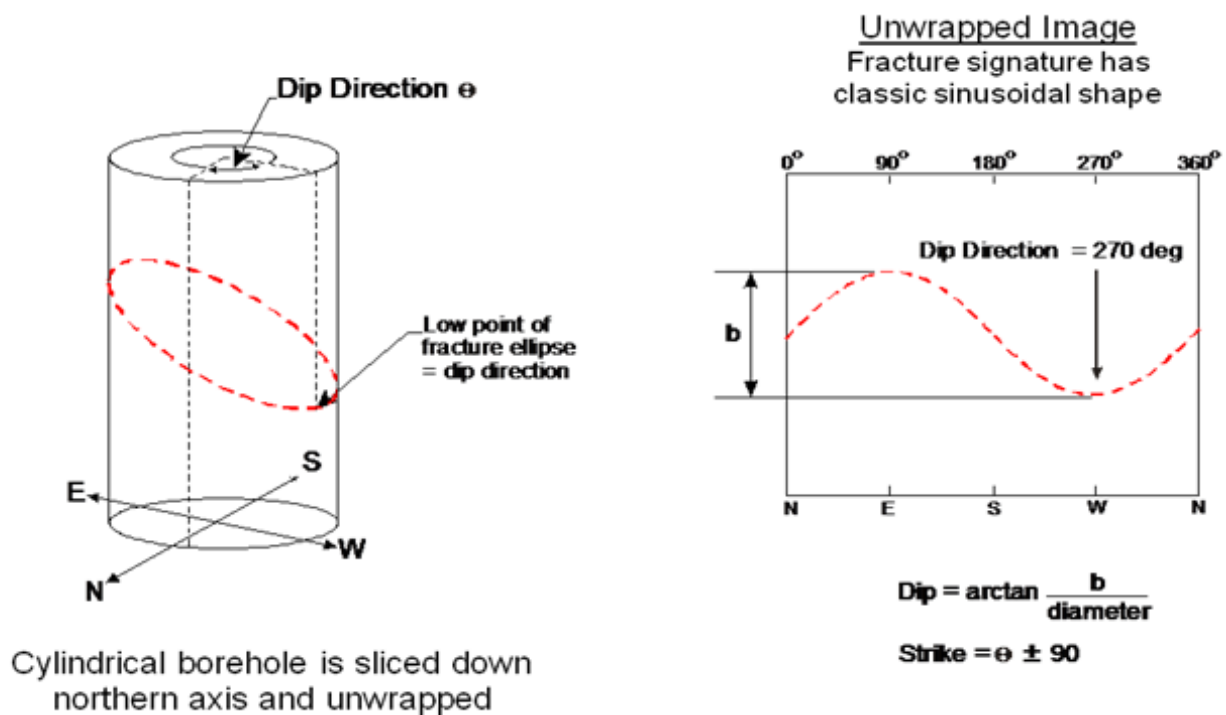


Figure A- 6: Schematic showing the sinusoidal fracture signature in the unwrapped borehole view.

ACOUSTIC TELEVIEWER (ATV) LOGS

Acoustic televiewer provides a 360° acoustic image of the borehole walls that can be used to identify and determine the orientation of planar features such as bedding and fractures. The data can also indicate the

relative degree of hardness of formation materials. As shown in Figure A-7, Ultrasonic pulses are transmitted from a rotating transducer inside the tool. The transmitted pulses reflect off the borehole wall and return to the tool where the travel time and amplitude of the acoustic signal are measured. In order for the acoustic waves to travel to and from the borehole wall, the well must be fluid filled. Greater travel time can indicate openings in the rock. Strong amplitude suggests smooth, competent rock. Weaker amplitudes suggest rough or less competent rock.

In addition to the features above, an acoustic caliper log can be calculated using travel time data parameters. Combining ATV diameter, two way traveltime of acoustic window reflection (time window – μsec), and borehole fluid velocity/slowness, a continuous borehole diameter log can be produced without the need for a mechanical caliper tool.

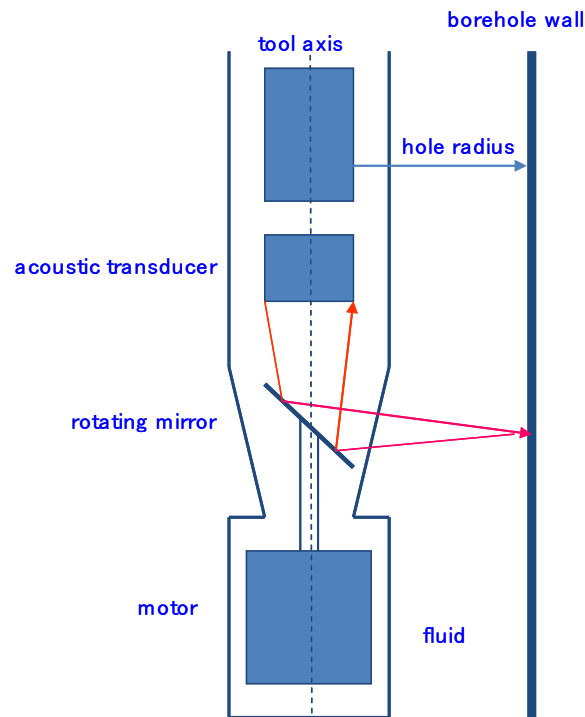


Figure A- 7: Schematic of the acoustic televiewer tool.

ATTACHMENT B
BOREHOLE LOGS



Optical Televiwer
Acoustic Televiwer
3-Arm Caliper
Electromagnetic Flowmeter (EMFM)






COMPANY:	Stantec	STATE:	GA
WELL ID:	ARAMW-12	ARM NO.:	24012142
FIELD/SITE:	Macon	API NO.:	N/A
COUNTY:	Bibb		
LOCATION:	TBD	OTHER SERVICES	Ford F-350
NORTHING:	TBD		
EASTING:	TBD		
SEC:	TBD	QUAD:	TBD
TWP:	TBD		
API	N/A		

PERMANENT DATUM:	Ground Surface	ELEVATION:	TBD	K.B.	N/A
LOG MEASURED FROM:	Ground Surface	ABOVE PERM. DATUM:	0	D.F.	N/A
DRILLING MEAS. FROM:	Ground Surface	STICK UP:	1.25	G.L.	N/A





LOGGING DATE	11.14.2024	11.14.2024	11.14.2024	11.14.2024	No Test Run
RUN NO	1	2	3	4	
TYPE LOG	OTV.GR	CAL	ATV.GR	EMFM A	
DRILLER DEPTH (FT)	65	65	65	65	
ARM DEPTH (FT)	66.42	66.35	66.35	N/A	
BTM LOGGED INTERVAL (FT)	66.42	66.35	66.35	63.96	
TOP LOGGED INTERVAL (FT)	6.66	18	10.75	43.99	
CASING SIZE (IN)/DEPTH (FT)	/39.2	/39.2	/39.2	/39.2	
CASING ARM (FT)	40.40	40.40	40.40	40.40	
BIT SIZE (IN)	TBD	TBD	TBD	TBD	
FLUID LEVEL IN HOLE (FT)	11.12	N/A	11.15	N/A	
MAG. DECLINATION (DEG)	5.9 W	5.9 W	5.9 W	5.9 W	
RECORDED BY	J. Renn	J. Renn	J. Renn	J. Renn	
WITNESSED BY	N/A	N/A	N/A	N/A	

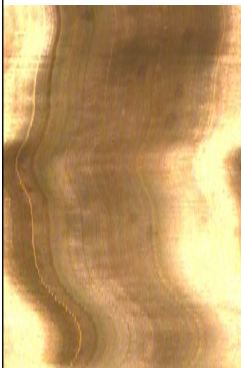
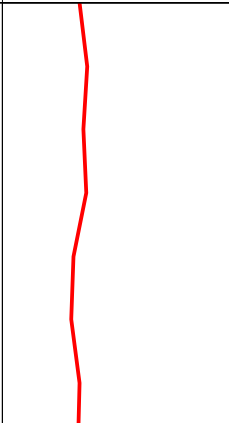
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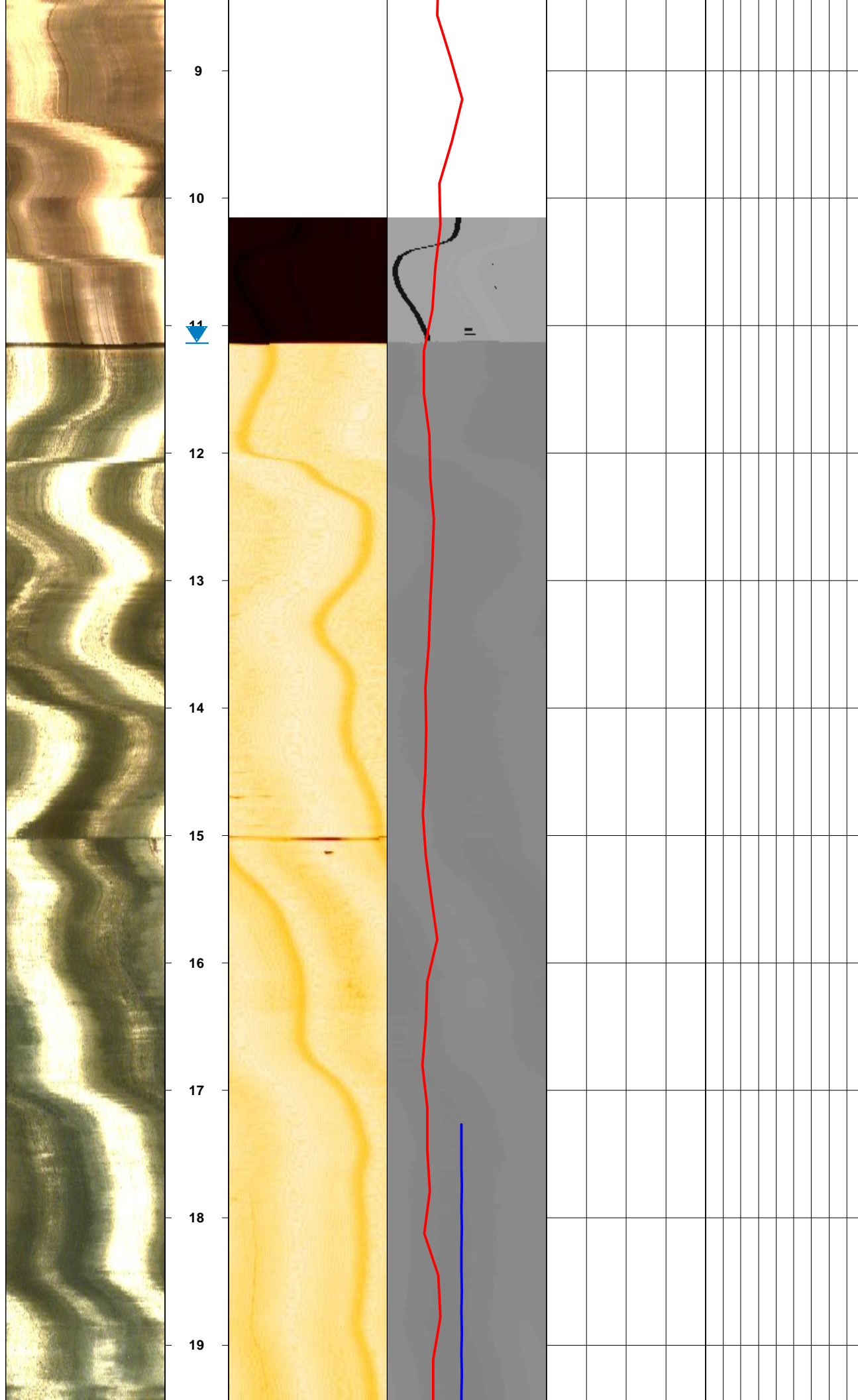
Symbols

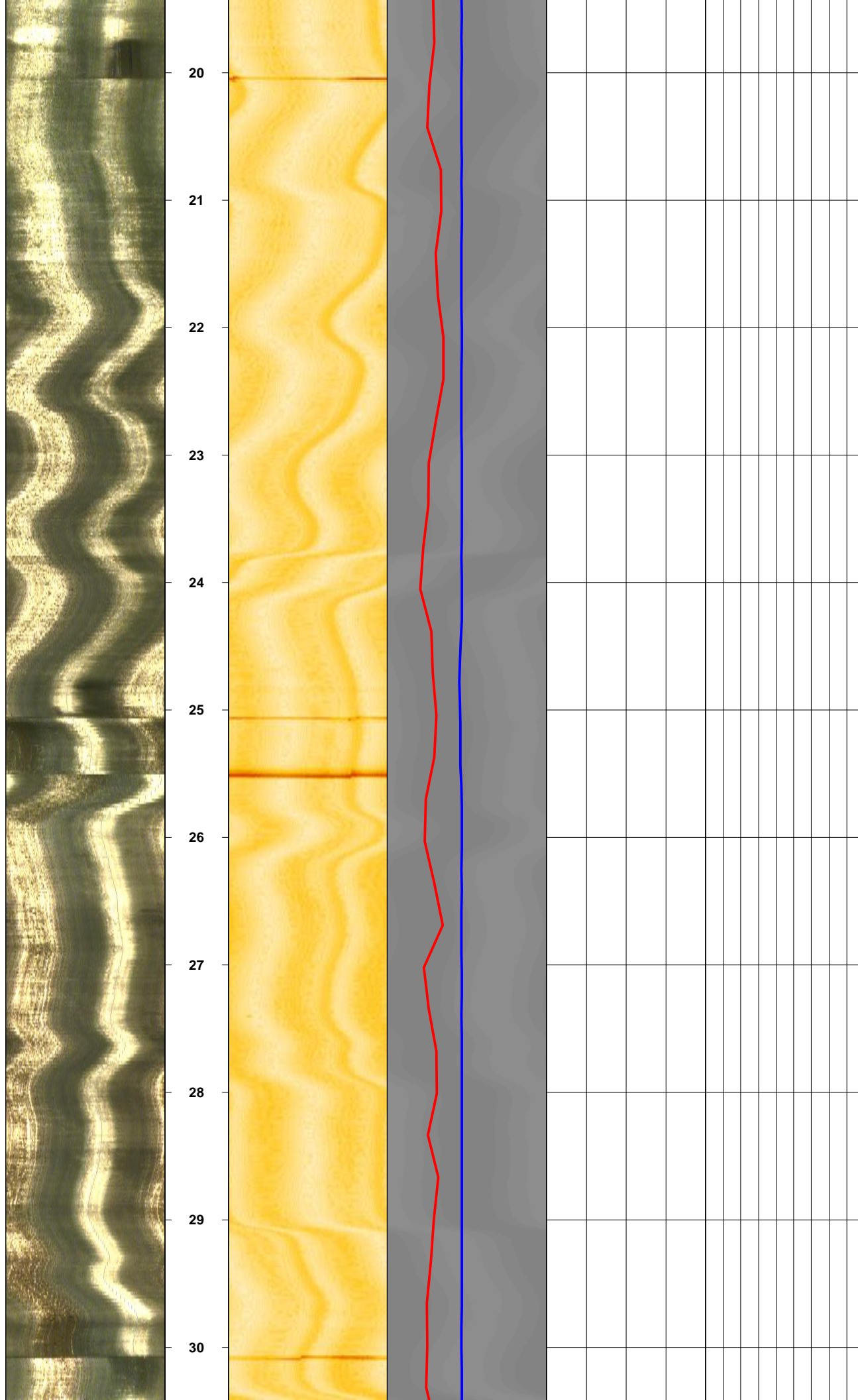
-  Bottom of Casing
-  Producing Zone
-  Fluid Level
-  Down Flow
-  Receiving Zone

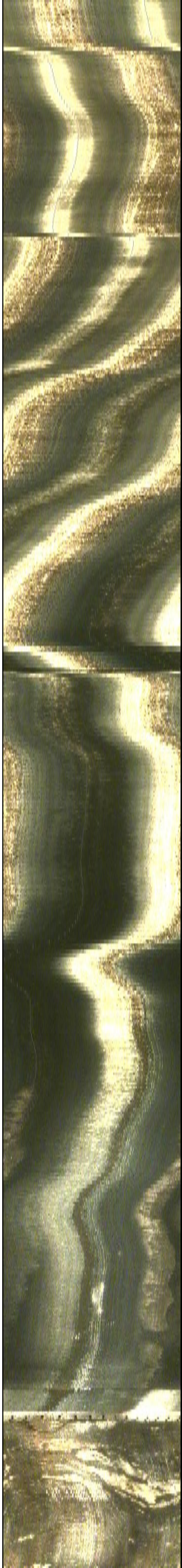
Structure

-  Open Fracture
-  Discontinuous Fract
-  Foliation
-  Part. Open Fract

Optical Televiwer	Depth	Acoustic Amplitude	Acoustic Travel Time	Plane Projection	Dip & Dip Direction	Ambient
0° 90° 180° 270° 0°	1in:1ft	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0° 90° 180° 270° 0°	0 90	Gal/Min
	Symbols		Natural Gamma 0 API 150 3- Arm Caliper 4 in 6			Up Down
	7 8					







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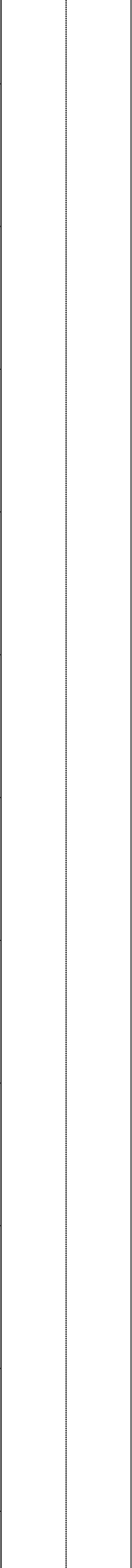
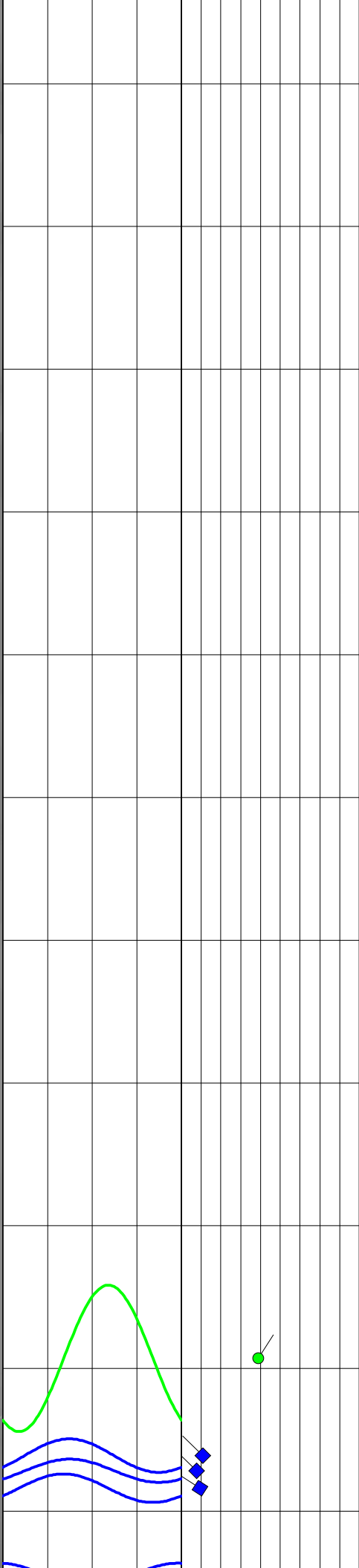
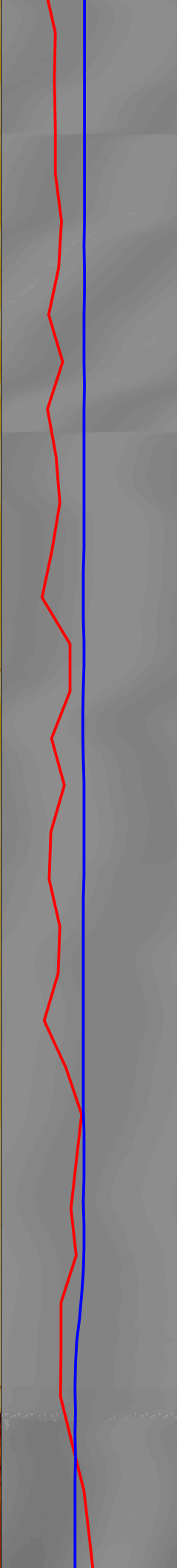
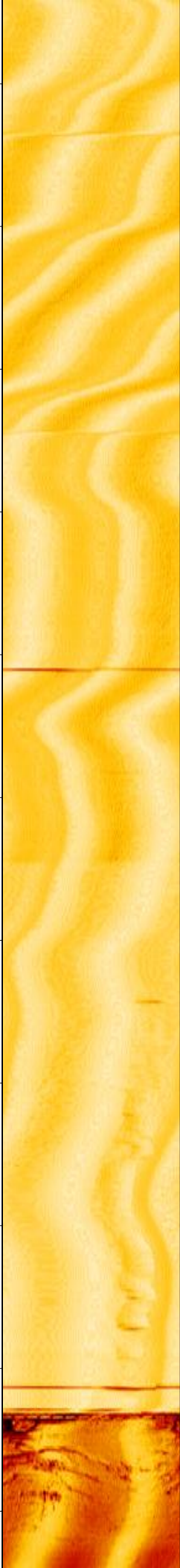
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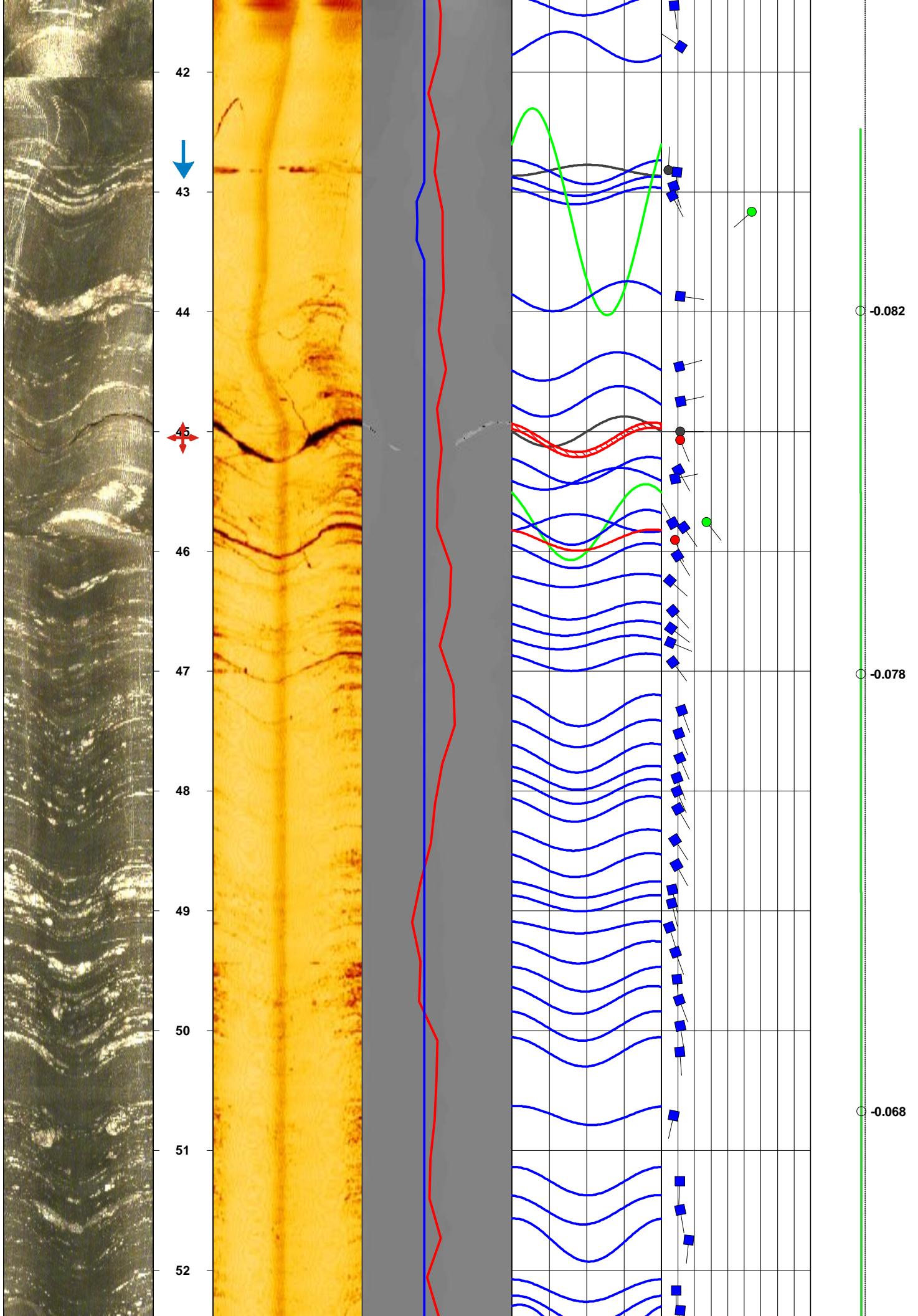
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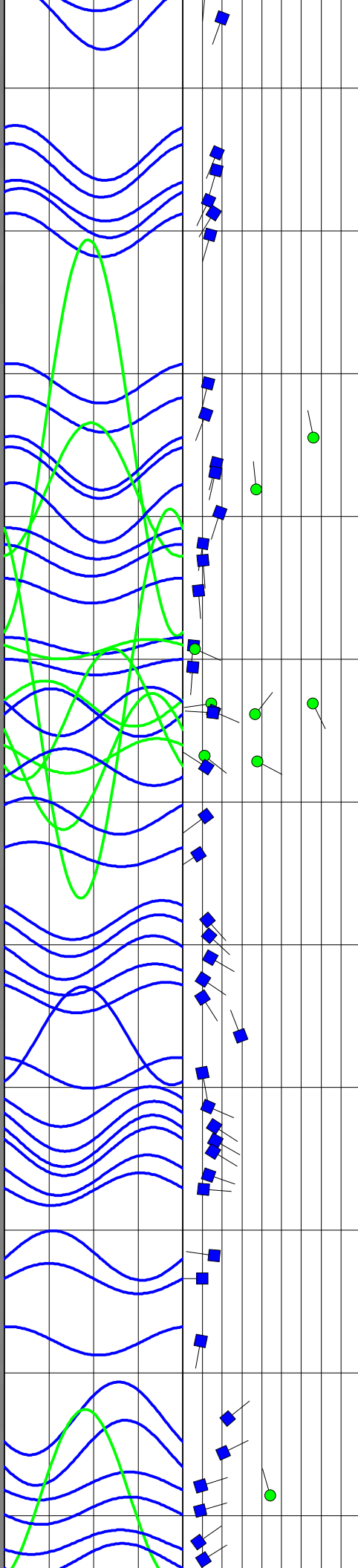
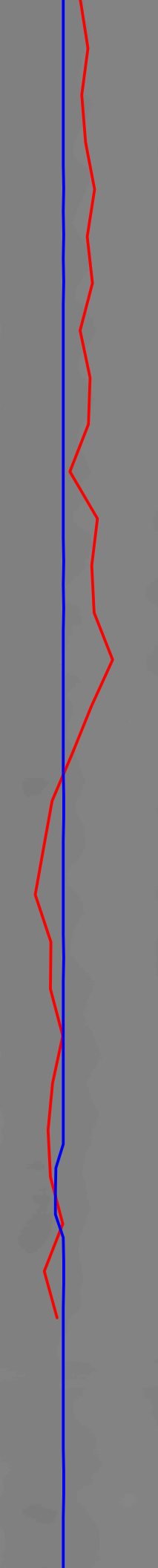
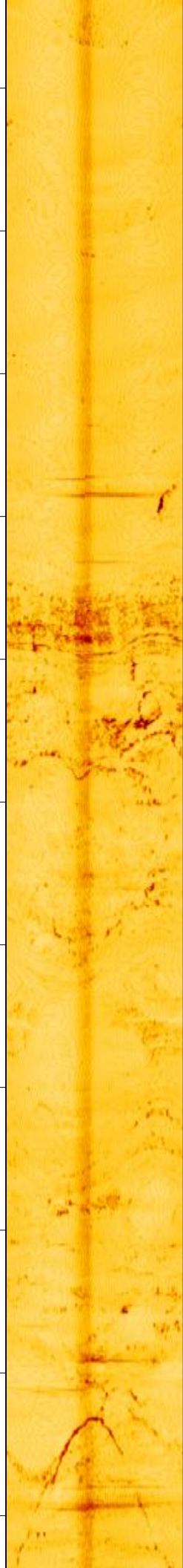
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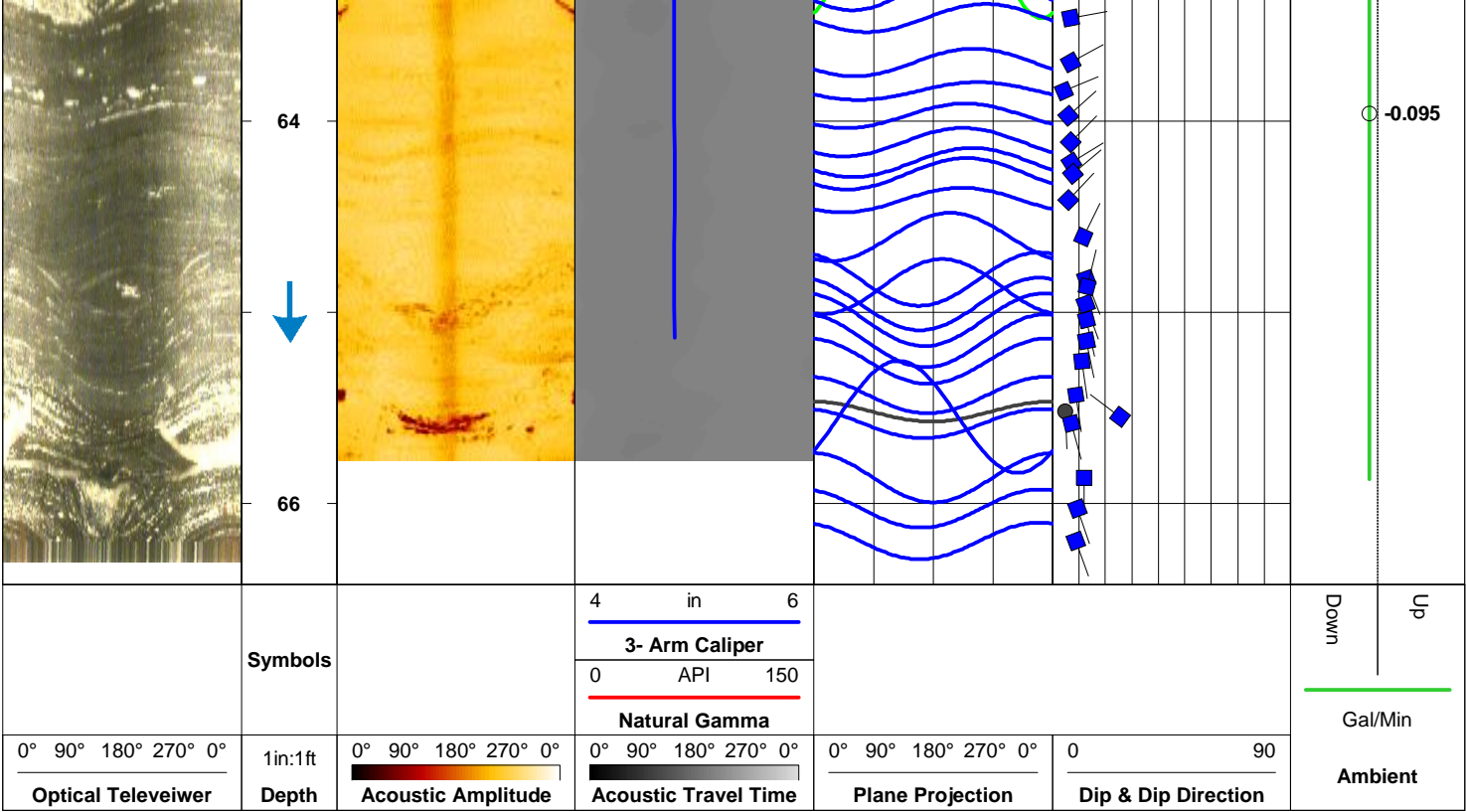
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-0.078



ATTACHMENT C
TABULATED LISTING OF PLANE ORIENTATIONS

Planar Orientations

Well ID	Depth (feet)	Dip Dir. (deg)	Dip (deg)	Aperture (mm)	Type	Strike/Dip (Quadrant)
ARAMW-12	39.93	32.75	39.01	0	Discontinuous Fract	N57W/39NE
ARAMW-12	40.61	314	10.76	0	Foliation	N44E/11NW
ARAMW-12	40.71	314.64	7.53	0	Foliation	N45E/8NW
ARAMW-12	40.84	302.76	9.28	0	Foliation	N33E/9NW
ARAMW-12	41.45	173.24	7.53	0	Foliation	N83E/8SE
ARAMW-12	41.78	303.78	11.64	0	Foliation	N34E/12NW
ARAMW-12	42.82	2.53	4.28	0	Part. Open Fract	N87W/4NE
ARAMW-12	42.83	183.98	9.23	0	Foliation	N86W/9SW
ARAMW-12	42.95	161.42	7.42	0	Foliation	N71E/7SE
ARAMW-12	43.03	152.88	6.62	0	Foliation	N63E/7SE
ARAMW-12	43.16	229.36	54.61	0	Discontinuous Fract	N41W/55SW
ARAMW-12	43.87	97.96	11.49	0	Foliation	N8E/11SE
ARAMW-12	44.45	74.54	10.85	0	Foliation	N15W/11NE
ARAMW-12	44.75	78.02	11.66	0	Foliation	N12W/12NE
ARAMW-12	45	90.56	11.5	0	Part. Open Fract	N1E/12SE
ARAMW-12	45.07	157.32	11.28	12.83	Open Fracture	N67E/11SE
ARAMW-12	45.32	151.17	10.18	0	Foliation	N61E/10SE
ARAMW-12	45.39	78.87	8.36	0	Foliation	N11W/8NE
ARAMW-12	45.76	141.36	27.27	0	Discontinuous Fract	N51E/27SE
ARAMW-12	45.76	330.99	6.93	0	Foliation	N61E/7NW
ARAMW-12	45.8	144.78	13.33	0	Foliation	N55E/13SE
ARAMW-12	45.9	158.31	8.19	0	Open Fracture	N68E/8SE
ARAMW-12	46.04	148.24	9.65	0	Foliation	N58E/10SE
ARAMW-12	46.24	131.74	5.22	0	Foliation	N42E/5SE
ARAMW-12	46.5	137.49	6.84	0	Foliation	N47E/7SE
ARAMW-12	46.64	126.19	5.77	0	Foliation	N36E/6SE
ARAMW-12	46.76	112.89	5.39	0	Foliation	N23E/5SE
ARAMW-12	46.92	142.7	6.77	0	Foliation	N53E/7SE
ARAMW-12	47.32	160.63	12.15	0	Foliation	N71E/12SE
ARAMW-12	47.52	157.94	10.55	0	Foliation	N68E/11SE
ARAMW-12	47.72	156.71	11.14	0	Foliation	N67E/11SE
ARAMW-12	47.89	158.44	9.3	0	Foliation	N68E/9SE
ARAMW-12	48	156.77	9.47	0	Foliation	N67E/9SE
ARAMW-12	48.15	149.76	9.81	0	Foliation	N60E/10SE
ARAMW-12	48.41	147.96	8.24	0	Foliation	N58E/8SE
ARAMW-12	48.62	151.91	9.22	0	Foliation	N62E/9SE
ARAMW-12	48.82	167.1	6.4	0	Foliation	N77E/6SE
ARAMW-12	48.94	165.94	6.32	0	Foliation	N76E/6SE
ARAMW-12	49.13	162.26	4.69	0	Foliation	N72E/5SE
ARAMW-12	49.34	160.52	8.61	0	Foliation	N71E/9SE
ARAMW-12	49.57	176.33	9.5	0	Foliation	N86E/10SE
ARAMW-12	49.74	158.93	10.7	0	Foliation	N69E/11SE
ARAMW-12	49.96	170.34	11.31	0	Foliation	N80E/11SE
ARAMW-12	50.17	175.01	11.2	0	Foliation	N85E/11SE
ARAMW-12	50.7	192.89	7.33	0	Foliation	N77W/7SW
ARAMW-12	51.25	181.96	10.96	0	Foliation	N88W/11SW
ARAMW-12	51.5	170.46	11.24	0	Foliation	N80E/11SE
ARAMW-12	51.75	186.01	16.33	0	Foliation	N84W/16SW
ARAMW-12	52.17	178.64	8.66	0	Foliation	N89E/9SE
ARAMW-12	52.33	186.24	11.31	0	Foliation	N84W/11SW
ARAMW-12	52.51	199.42	19.75	0	Foliation	N71W/20SW
ARAMW-12	53.45	202.84	17.44	0	Foliation	N67W/17SW
ARAMW-12	53.57	196.34	17.1	0	Foliation	N74W/17SW

Planar Orientations

Well ID	Depth (feet)	Dip Dir. (deg)	Dip (deg)	Aperture (mm)	Type	Strike/Dip (Quadrant)
ARAMW-12	53.79	204.79	13.14	0	Foliation	N65W/13SW
ARAMW-12	53.87	211.78	15.7	0	Foliation	N58W/16SW
ARAMW-12	54.03	196.77	14.04	0	Foliation	N73W/14SW
ARAMW-12	55.06	193.89	12.83	0	Foliation	N76W/13SW
ARAMW-12	55.28	200.53	11.64	0	Foliation	N69W/12SW
ARAMW-12	55.45	348.83	66.17	0	Discontinuous Fract	N79E/66NW
ARAMW-12	55.62	195.41	17.09	0	Foliation	N75W/17SW
ARAMW-12	55.69	192.62	16.43	0	Foliation	N77W/16SW
ARAMW-12	55.81	354.74	37.24	0	Discontinuous Fract	N85E/37NW
ARAMW-12	55.97	197.88	18.85	0	Foliation	N72W/19SW
ARAMW-12	56.19	189.33	10.1	0	Foliation	N81W/10SW
ARAMW-12	56.3	175.72	10.29	0	Foliation	N86E/10SE
ARAMW-12	56.52	175.8	8.08	0	Foliation	N86E/8SE
ARAMW-12	56.9	186.62	5.47	0	Foliation	N83W/5SW
ARAMW-12	56.93	113.68	6.38	0	Discontinuous Fract	N24E/6SE
ARAMW-12	57.05	184.91	5.09	0	Foliation	N85W/5SW
ARAMW-12	57.31	261.67	14.49	0	Discontinuous Fract	N8W/14SW
ARAMW-12	57.31	154.41	65.74	0	Discontinuous Fract	N64E/66SE
ARAMW-12	57.37	113.04	15.51	0	Foliation	N23E/16SE
ARAMW-12	57.37	273.93	15.23	0	Foliation	N4E/15NW
ARAMW-12	57.38	38.02	36.73	0	Discontinuous Fract	N52W/37NE
ARAMW-12	57.67	127.84	11.17	0	Discontinuous Fract	N38E/11SE
ARAMW-12	57.72	117.91	37.81	0	Discontinuous Fract	N28E/38SE
ARAMW-12	57.75	302.37	11.85	0	Foliation	N32E/12NW
ARAMW-12	58.1	232.58	11.77	0	Foliation	N37W/12SW
ARAMW-12	58.37	236.19	8	0	Foliation	N34W/8SW
ARAMW-12	58.83	138.07	12.56	0	Foliation	N48E/13SE
ARAMW-12	58.94	132.37	13.41	0	Foliation	N42E/13SE
ARAMW-12	59.09	120.06	14.01	0	Foliation	N30E/14SE
ARAMW-12	59.24	123.95	10.12	0	Foliation	N34E/10SE
ARAMW-12	59.37	146.71	9.86	0	Foliation	N57E/10SE
ARAMW-12	59.64	338.36	29.21	0	Foliation	N68E/29NW
ARAMW-12	59.9	169.4	10	0	Foliation	N79E/10SE
ARAMW-12	60.13	113.54	12.87	0	Foliation	N24E/13SE
ARAMW-12	60.27	122.16	15.94	0	Foliation	N32E/16SE
ARAMW-12	60.37	119.44	16.35	0	Foliation	N29E/16SE
ARAMW-12	60.45	120.85	15.35	0	Foliation	N31E/15SE
ARAMW-12	60.61	109.2	12.99	0	Foliation	N19E/13SE
ARAMW-12	60.71	94.1	10.52	0	Foliation	N4E/11SE
ARAMW-12	61.18	277.64	15.77	0	Foliation	N8E/16NW
ARAMW-12	61.34	270.08	9.86	0	Foliation	N0E/10NW
ARAMW-12	61.77	189.81	9.18	0	Foliation	N80W/9SW
ARAMW-12	62.32	51.03	22.65	0	Foliation	N39W/23NE
ARAMW-12	62.56	64.09	20.38	0	Foliation	N26W/20NE
ARAMW-12	62.79	72.86	9.02	0	Foliation	N17W/9NE
ARAMW-12	62.86	343.22	44.33	0	Discontinuous Fract	N73E/44NW
ARAMW-12	62.96	73.47	8.9	0	Foliation	N17W/9NE
ARAMW-12	63.18	54.48	7.93	0	Foliation	N36W/8NE
ARAMW-12	63.31	58.12	10.39	0	Foliation	N32W/10NE
ARAMW-12	63.46	79.17	6.82	0	Foliation	N11W/7NE
ARAMW-12	63.69	61.44	6.73	0	Foliation	N29W/7NE
ARAMW-12	63.84	67.37	4.33	0	Foliation	N23W/4NE
ARAMW-12	63.97	48.41	5.98	0	Foliation	N42W/6NE

Planar Orientations

Well ID	Depth (feet)	Dip Dir. (deg)	Dip (deg)	Aperture (mm)	Type	Strike/Dip (Quadrant)
ARAMW-12	64.11	45.1	6.91	0	Foliation	N45W/7NE
ARAMW-12	64.22	58.82	7.07	0	Foliation	N31W/7NE
ARAMW-12	64.28	50.14	7.64	0	Foliation	N40W/8NE
ARAMW-12	64.41	43.21	6.01	0	Foliation	N47W/6NE
ARAMW-12	64.61	25.55	11.59	0	Foliation	N64W/12NE
ARAMW-12	64.82	159.14	12.84	0	Foliation	N69E/13SE
ARAMW-12	64.86	13.53	13.2	0	Foliation	N76W/13NE
ARAMW-12	64.95	160.22	12.61	0	Foliation	N70E/13SE
ARAMW-12	65.04	166.92	12.65	0	Foliation	N77E/13SE
ARAMW-12	65.15	168.5	12.67	0	Foliation	N79E/13SE
ARAMW-12	65.25	171.97	10.96	0	Foliation	N82E/11SE
ARAMW-12	65.43	171.61	8.86	0	Foliation	N82E/9SE
ARAMW-12	65.52	177.24	4.89	0	Part. Open Fract	N87E/5SE
ARAMW-12	65.54	307.46	25.5	0	Foliation	N37E/26NW
ARAMW-12	65.58	164.84	7.13	0	Foliation	N75E/7SE
ARAMW-12	65.86	179.52	11.84	0	Foliation	N90E/12SE
ARAMW-12	66.02	161.6	9.29	0	Foliation	N72E/9SE
ARAMW-12	66.19	159.55	8.93	0	Foliation	N70E/9SE

APPENDIX C

Piezometer Installation Logs





Well Installation Field Log

Project Name: <u>Plant Arkwright PDI Pilot Test</u>	Date Started: <u>11/9/2024</u>	Date Completed: <u>11/21/2024</u>
Borehole/Well No: <u>ARAMW-10</u>	Northing (ft): <u>1063082.33</u>	Easting (ft): <u>2438902.85</u>
Plant Name: <u>Arkwright</u>	Latitude: <u>32.921828</u>	Longitude: <u>-83.702851</u>
Plant Address: <u>5241 Arkwright Road, Macon, Georgia, 31210</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD88</u>
Project & Task Number: <u>175569434</u>	Surface/ Ground Elevation (ft): <u>308.39</u>	Stickup (ft, ags): <u>N/A</u>
	<u>5.63 to 44.1',</u>	
Goals/Task: <u>AP-2 ARAMW-10 Well Installation</u>	Borehole Diameter (in): <u>4.88 to 74.8'</u>	Borehole Depth (ft, bgs): <u>74.8</u>
Drilling Company: <u>Southern Company Services C.F.S.</u>	Well Casing Diameter (in): <u>2.00</u>	Well Depth (ft, bgs): <u>58.0</u>
Drilling Equipment/Rig Type: <u>CME 550</u>	Top of Casing elev (ft): <u>308.49</u>	Screen length (ft): <u>10.0</u>
Drilling Method: <u>HSA (5.63" OD/ 2.25" ID) & Wireline (PQ core)</u>	DTW at Development - 11/12/24 (ft, toc): <u>11.20</u>	
Sampling Method: <u>SPT & 4.83" core barrel (3.35" core)</u>	**Static DTW - 12/12/24 (ft, toc): <u>7.40</u>	
Prepared By: <u>Andreas Shoredits</u>		
Review By: <u>Edgar Smith</u>		

***Not to Scale**

*Depth (feet)	Well Construction		Materials Inventory
—	Stick up	N/A	8" Manhole Cover with Locking Lid
—	Ground surface - 0.0'	5.5" Steel outer casing	Stick up: N/A ft, ags
+			Outer Casing Type (steel or PVC, schedule 40 or 80): 5.5" OD steel outer, 2.0" OD Sch 40 PVC well
+			Outer Casing Top: ~10.0 ft, bgs Bottom: 44.1 ft, bgs
+	Bottom of Grout 43.5 Top of Bentonite	264.9 Top of Bentonite Elevation	Screen Type: PVC U-Pack Type II
+		2-in inch PVC casing	Screen Slot Size: 0.010
+	Bottom of Bentonite 46.1 Top of Filter Pack	262.3 Top of Filter pack Elevation	Screen Top: 47.5 ft, bgs Bottom: 57.5 ft, bgs
+	Top of Screen 47.5	260.9 Top of Screen Elevation	Sump/end cap Top: 57.5 ft, bgs Bottom: 58.0 ft, bgs
+		0.010 Slot screen	Grout Quantity: 4 (50 lb) bags of Aqua Guard and 60 gallons water
+			Grout Type: Baroid Aqua Guard 30% Solids Grout
+			Grout Top: 0.0 ft, bgs Bottom: 43.5 ft, bgs
+			Bentonite Type: Pel-Plug 1/4" PDS TR30 pellets
+			Bentonite Quantity: 0.50 buckets (approx. 2.5 gal) - seal 3.50 buckets (approx. 17.5 gal) - sump backfill
+			Bentonite Seal Top: 43.5 ft, bgs Bottom: 46.1 ft, bgs
+			Filter Pack - Annular Space Type (manufacturer, size): Covia Filtersil Industrial Sand Type 0.85. Used 3 x 50 lbs bags Filter pack volume approx. 3.52 gal
+			Filter Pack: Top: 46.1 ft, bgs Bottom: 58.1 ft, bgs
+	Bottom of screen 57.5 Sump/end cap 58.0	250.9 Bottom of Screen Elevation 250.4 Sump/end cap elevation	Notes: Bentonite seal hydrated 2-hours prior to grout backfill placement. Backfill of borehole sump from 74.8 to 58.1 ft bgs using bentonite TR pellets
+	Top of backfill below filter pack (see notes) 58.1	250.3 Base of filter pack Elevation	Elevation in feet NAVD88 (North American Vertical Datum 1988) ** Beaverdam Creek stage was elevated
+	Terminus of borehole 74.8		

Well Installation Field Log

Project Name: <u>Plant Arkwright PDI Pilot Test</u>	Date Started: <u>11/10/2024</u>	Date Completed: <u>11/21/2024</u>
Borehole/Well No: <u>ARAMW-11</u>	Northing (ft): <u>1063077.03</u>	Easting (ft): <u>2438902.96</u>
Plant Name: <u>Arkwright</u>	Latitude: <u>32.921814</u>	Longitude: <u>-83.702851</u>
Plant Address: <u>5241 Arkwright Road, Macon, Georgia, 31210</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD88</u>
Project & Task Number: <u>175569434</u>	Surface/ Ground Elevation (ft): <u>308.02</u>	Stickup (ft, ags): <u>N/A</u>
Goals/Task: <u>AP-2 ARAMW-11 Well Installation</u>	Borehole Diameter (in): <u>5.63</u>	Borehole Depth (ft, bgs): <u>40.5</u>
Drilling Company: <u>Southern Company Services C.F.S.</u>	Well Casing Diameter (in): <u>2.00</u>	Well Depth (ft, bgs): <u>40.5</u>
Drilling Equipment/Rig Type: <u>CME 550</u>	Top of Casing elev (ft): <u>308.09</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>HSA (5.63" OD/ 2.25" ID)</u>	DTW at Development - 11/12/24 (ft, toc): <u>11.27</u>	
Sampling Method: <u>SPT</u>	**Static DTW - 12/12/24 (ft, toc): <u>7.36</u>	
Prepared By: <u>Andreas Shoredits</u>		
Review By: <u>Edgar Smith</u>		

***Not to Scale**

*Depth (feet)	Well Construction		Materials Inventory
—	Stick up	N/A	8" Inch Manhole Cover with Locking Lid
—	Ground surface - 0.0'		Stick up: N/A ft, ags
1			Outer Casing Type (steel or PVC, schedule 40 or 80): N/A
2			Outer Casing Top: N/A ft, bgs Bottom: N/A ft, bgs
3			Screen Type: PVC U-Pack Type II
4			Screen Slot Size: 0.010
5			Screen Top: 30.0 ft, bgs Bottom: 40.0 ft, bgs
6			Sump/end cap Top: 40.0 ft, bgs Bottom: 40.5 ft, bgs
7			Grout Quantity: 2 (50 lb) bags of Aqua Guard and 30 gallons water
8			Grout Type: Baroid Aqua Guard 30% Solids Grout
9			Grout Top: 0.0 ft, bgs Bottom: 25.7 ft, bgs
10			Bentonite Type: Pel-Plug 1/4" PDS TR30 pellets
11			Bentonite Quantity: 0.50 buckets (approx. 2.5 gal)
12			Bentonite Seal Top: 25.7 ft, bgs Bottom: 27.9 ft, bgs
13			Filter Pack - Annular Space Type (manufacturer, size): Covia Filtersil Industrial Sand Type 0.85. Used 3 x 50 lbs bags Filter pack volume approx. 3.69 gal
14			Filter Pack: Top: 27.9 ft, bgs Bottom: 40.5 ft, bgs
15			Notes:
16			Bentonite seal hydrated 2-hours prior to grout backfill backfill placement.
17			Backfill of borehole sump was not necessary.
18			
19			Elevation in feet NAVD88 (North American Vertical Datum 1988)
20			** Beaverdam Creek stage was elevated

Well Installation Field Log

Project Name: <u>Plant Arkwright Vertical Groundwater Delineation</u>	Date Started: <u>11/21/2024</u>	Date Completed: <u>12/5/2024</u>
Borehole/Well No: <u>ARAMW-12</u>	Northing (ft): <u>1062906.98</u>	Easting (ft): <u>2439199.15</u>
Plant Name: <u>Arkwright</u>	Latitude: <u>32.921343</u>	Longitude: <u>-83.701888</u>
Plant Address: <u>5241 Arkwright Road, Macon, Georgia, 31210</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD88</u>
Project & Task Number: <u>175569434</u>	Surface/ Ground Elevation (ft): <u>305.80</u>	Stickup (ft, ags): <u>3.28</u>
Goals/Task: <u>AP-2 ARAMW-12 Well Installation</u>	5.63 to 39.2', Borehole Diameter (in): <u>4.88 to 65.4'</u>	Borehole Depth (ft, bgs): <u>65.4</u>
Drilling Company: <u>Southern Company Services C.F.S.</u>	Well Casing Diameter (in): <u>2.00</u>	Well Depth (ft, bgs): <u>65.4</u>
Drilling Equipment/Rig Type: <u>CME 550</u>	Top of Casing elev (ft): <u>309.08</u>	Screen length (ft): <u>15.0</u>
Drilling Method: <u>HSA (5.63" OD/ 2.25" ID) & Wireline (PQ core)</u>	DTW at Development - 12/11/24 (ft, toc): <u>13.04</u>	
Sampling Method: <u>SPT & 4.83" core barrel (3.35" core)</u>	Static DTW - 11/5/24 (ft, bgs): <u>11.20</u>	
Prepared By: <u>Andreas Shoredits</u>		
Review By: <u>Edgar Smith</u>		

***Not to Scale**

*Depth (feet)	Well Construction		Materials Inventory
—	Stick up	3.28 ft	6" Diameter Protective Cover with Locking Lid
—	Ground surface - 0.0'		5.5" Steel outer casing
1			Casing Type (steel or PVC, schedule 40 or 80): 5.5" OD steel outer, 2.0" OD Sch 40 PVC well
2			Casing Top: 1.10 ft, ags Bottom: 39.2 ft, bgs
3			Screen Type: Schedule 40 PVC
4			Screen Slot Size: 0.010
5			Screen Top: 49.9 ft, bgs Bottom: 64.9 ft, bgs
6			Sump/end cap Top: 64.9 ft, bgs Bottom: 65.4 ft, bgs
7			Grout Quantity: 4 (50 lb) bags of Aqua Guard and 60 gallons water
8			Grout Type: Baroid Aqua Guard 30% Solids Grout
9			Grout Top: 0.0 ft, bgs Bottom: 43.8 ft, bgs
10			Bentonite Type: Pel-Plug 1/4" PDS TR30 pellets
11			Bentonite Quantity: 0.75 buckets (approx. 3.75 gal)
12			Bentonite Seal Top: 43.8 ft, bgs Bottom: 47.8 ft, bgs
13			Filter Pack - Annular Space Type (manufacturer, size): Covia Filtersil Industrial Sand Type 0.85. Used 3 x 50 lbs bags Filter pack volume approx. 5.16 gal
14			Filter Pack: Top: 47.8 ft, bgs Bottom: 65.4 ft, bgs
15			Notes: Bentonite seal hydrated 2-hours prior to grout backfill placement. Borehole sump backfill was not necessary because well installed to bottom of borehole.
16			Elevation in feet NAVD88 (North American Vertical Datum 1988)
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APPENDIX D

Piezometer Development Forms



Calibration Report

Instrument	Aqua TROLL 400
Serial Number	1082822
Created	11/12/2024

Sensor	RDO
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Serial Number	1079619
Last Calibrated	11/12/2024

Calibration Details

Slope	0.9295201
Offset	-0.00 mg/L

Calibration point 100%

Concentration	10.83 mg/L
Temperature	14.79 °C
Barometric Pressure	1,007.0 mbar

Sensor	Conductivity
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Serial Number	1082822
Last Calibrated	11/12/2024

Calibration Details

Offset	0.00 µS/cm
Cell Constant	1.103
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	Level
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Serial Number	1081452
Last Calibrated	Factory Defaults

Sensor	pH/ORP
Serial Number	22528
Last Calibrated	11/12/2024

Calibration Details

Total Calibration Points	3
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Calibration Point 1

pH of Buffer	4.00 pH
pH mV	163.4 mV
Temperature	15.75 °C

Calibration Point 2

pH of Buffer	7.00 pH
pH mV	-3.8 mV
Temperature	16.06 °C

Calibration Point 3

pH of Buffer	10.00 pH
pH mV	-173.7 mV
Temperature	16.18 °C

Slope and Offset 1

Slope	-55.75 mV/pH
Offset	-3.8 mV

Slope and Offset 2

Slope	-56.61 mV/pH
Offset	-3.8 mV

ORP

ORP Solution	ORP Standard
Offset	-13.1 mV
Temperature	15.79 °C

Low-Flow Test Report:

Test Date / Time: 11/12/2024 9:01:19 AM
Project: Arkwright AP2 PDI
Operator Name: Cynthia Hansen

Location Name: ARAMW-11, AP-2 Latitude: 32.92182103732442 Longitude: -83.70287896706324 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.5 ft Total Depth: 40.5 ft Initial Depth to Water: 11.27 ft	Pump Type: Reclaimer pump Tubing Type: LDPE Pump Intake From TOC: 35 ft Estimated Total Volume Pumped: 48615 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Final Draw Down: 0.53 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082822
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Test Notes:
Redevelopment by over-pumping. Pump was placed at the bottom of the screen then pump was moved to top of screen, followed by the screen mid point.and pumped until stability was achieved.

Weather Conditions:
Sunny, 65F

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 %	+/- 10	+/- 10	+/- 0.33	
11/12/2024 9:01 AM	00:00	5.75 pH	17.97 °C	1,692.6 µS/cm	0.85 mg/L	311.00 NTU	-269.0 mV	11.80 ft	300.00 ml/min
11/12/2024 9:11 AM	10:00	5.71 pH	18.03 °C	1,730.9 µS/cm	0.69 mg/L	193.00 NTU	-258.9 mV	11.80 ft	300.00 ml/min
11/12/2024 9:21 AM	20:00	5.71 pH	18.06 °C	1,735.7 µS/cm	0.63 mg/L	76.90 NTU	-298.8 mV	11.80 ft	300.00 ml/min
11/12/2024 9:31 AM	30:00	5.70 pH	18.12 °C	1,726.9 µS/cm	0.61 mg/L	40.80 NTU	-244.3 mV	11.80 ft	300.00 ml/min
11/12/2024 9:41 AM	40:00	5.70 pH	18.15 °C	1,726.9 µS/cm	0.59 mg/L	30.40 NTU	-237.5 mV	11.80 ft	300.00 ml/min
11/12/2024 9:51 AM	50:00	5.69 pH	18.20 °C	1,719.0 µS/cm	0.57 mg/L	26.10 NTU	-230.4 mV	11.80 ft	300.00 ml/min
11/12/2024 10:01 AM	01:00:00	5.68 pH	18.28 °C	1,726.4 µS/cm	0.56 mg/L	24.00 NTU	-222.5 mV	11.80 ft	300.00 ml/min
11/12/2024 10:11 AM	01:10:00	5.69 pH	18.37 °C	1,707.7 µS/cm	0.55 mg/L	16.80 NTU	-222.2 mV	11.80 ft	300.00 ml/min
11/12/2024 10:21 AM	01:20:00	5.67 pH	18.45 °C	1,713.3 µS/cm	0.57 mg/L	16.00 NTU	-208.0 mV	11.80 ft	300.00 ml/min
11/12/2024 10:31 AM	01:30:00	5.66 pH	18.47 °C	1,732.3 µS/cm	0.54 mg/L	12.60 NTU	-201.9 mV	11.80 ft	300.00 ml/min
11/12/2024 10:41 AM	01:40:00	5.67 pH	18.55 °C	1,736.2 µS/cm	0.52 mg/L	11.20 NTU	-206.8 mV	11.80 ft	300.00 ml/min
11/12/2024 10:51 AM	01:50:00	5.66 pH	18.82 °C	1,767.1 µS/cm	0.51 mg/L	9.35 NTU	-196.5 mV	11.80 ft	300.00 ml/min
11/12/2024 11:01 AM	02:00:00	5.66 pH	18.87 °C	1,797.4 µS/cm	0.52 mg/L	7.65 NTU	-247.2 mV	11.80 ft	300.00 ml/min

11/12/2024 11:11 AM	02:10:00	5.64 pH	19.10 °C	1,796.4 µS/cm	0.52 mg/L	6.21 NTU	-180.7 mV	11.80 ft	300.00 ml/min
11/12/2024 11:21 AM	02:20:00	5.64 pH	19.37 °C	1,798.6 µS/cm	0.51 mg/L	4.92 NTU	-175.6 mV	11.80 ft	300.00 ml/min
11/12/2024 11:31 AM	02:30:00	5.64 pH	19.34 °C	1,791.0 µS/cm	0.51 mg/L	4.63 NTU	-173.7 mV	11.80 ft	300.00 ml/min
11/12/2024 11:41 AM	02:40:00	5.64 pH	19.23 °C	1,776.6 µS/cm	0.49 mg/L	4.06 NTU	-176.8 mV	11.80 ft	300.00 ml/min
11/12/2024 11:43 AM	02:42:03	5.63 pH	19.22 °C	1,770.0 µS/cm	0.50 mg/L	4.03 NTU	-169.5 mV	11.80 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 11/12/2024 12:02:49 PM
Project: Arkwright AP-2 PDI
Operator Name: Cynthia Hansen

Location Name: ARAMW-10, AP-2 Latitude: 32.921865050725714 Longitude: -83.70277573721029 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 48 ft Total Depth: 58 ft Initial Depth to Water: 11.20 ft	Pump Type: Reclaimer pump Tubing Type: LDPE Pump Intake From TOC: 53 ft Estimated Total Volume Pumped: 18000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.60 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082822
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Test Notes:
Redevelopment by over-pumping was performed on 11/11/2024. Pump was deployed to screen mid point and purged until stability was achieved.

Weather Conditions:
Sunny, 72F

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 %	+/- 10	+/- 10	+/- 0.33	
11/12/2024 12:02 PM	00:00	6.64 pH	19.59 °C	329.55 µS/cm	9.52 mg/L	11.40 NTU	140.6 mV	11.80 ft	300.00 ml/min
11/12/2024 12:12 PM	10:00	6.07 pH	19.13 °C	1,321.1 µS/cm	1.85 mg/L	10.20 NTU	63.7 mV	11.80 ft	300.00 ml/min
11/12/2024 12:22 PM	20:00	5.95 pH	19.05 °C	1,570.6 µS/cm	0.42 mg/L	9.12 NTU	-76.3 mV	11.80 ft	300.00 ml/min
11/12/2024 12:32 PM	30:00	5.92 pH	19.00 °C	1,608.3 µS/cm	0.34 mg/L	5.47 NTU	-69.8 mV	11.80 ft	300.00 ml/min
11/12/2024 12:42 PM	40:00	5.89 pH	18.88 °C	1,640.6 µS/cm	0.32 mg/L	4.39 NTU	-37.0 mV	11.80 ft	300.00 ml/min
11/12/2024 12:52 PM	50:00	5.88 pH	18.82 °C	1,670.9 µS/cm	0.30 mg/L	3.62 NTU	-25.2 mV	11.80 ft	300.00 ml/min
11/12/2024 1:02 PM	01:00:00	5.86 pH	18.79 °C	1,695.6 µS/cm	0.29 mg/L	1.11 NTU	-17.4 mV	11.80 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Calibration Report

Instrument	Aqua TROLL 400
Serial Number	1082822
Created	12/10/2024

Sensor	RDO
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Serial Number	1079619
Last Calibrated	12/10/2024

Calibration Details

Slope	0.9234736
Offset	-0.00 mg/L

Calibration point 100%

Concentration	9.54 mg/L
Temperature	19.87 °C
Barometric Pressure	979.71 mbar

Sensor	Conductivity
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Serial Number	1082822
Last Calibrated	12/10/2024

Calibration Details

Offset	0.00 μ S/cm
Cell Constant	1.004
Reference Temperature	25.00 °C
TDS Conversion Factor (ppm)	0.65

Sensor	Level
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Serial Number	1081452
Last Calibrated	Factory Defaults

Sensor	pH/ORP
Serial Number	22528
Last Calibrated	12/10/2024

Calibration Details

Total Calibration Points	3
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Calibration Point 1

pH of Buffer	4.00 pH
pH mV	171.5 mV
Temperature	19.30 °C

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-3.6 mV
Temperature	19.22 °C

Calibration Point 3

pH of Buffer	10.05 pH
pH mV	-174.2 mV
Temperature	19.31 °C

Slope and Offset 1

Slope	-57.99 mV/pH
Offset	-2.5 mV

Slope and Offset 2

Slope	-56.3 mV/pH
Offset	-2.5 mV

ORP

ORP Solution	ORP Standard
Offset	-5.7 mV
Temperature	19.67 °C



WELL DEVELOPMENT FORM

Project Name: Southern Company Arkwright
Plant Name: Plant Arkwright
Plant Address: 5001 Arkwright Road, Macon, GA 31210
Project Number: 175569434
Goal/Task: Initial Development
Well ID: ARAMW-12
Development Methods: Over-pumping and Surging using Proactive Tornado Pump
Developed By: Andreas Shoredits

Page 1 **of** 1
Well Type: Stick-up
Well Diameter (inches): 2
Initial Depth to Water (Feet BTOC): 13.04
Total Depth of Well (Feet BTOC): 68.82
Development Start Date: 12/11/2024
Development End Date: 12/11/2024
Recorded by: Andreas Shoredits

Time	Depth to Water (feet btoC)	Flow Rate (mL/min)	Cumulative Vol. Purged (gal)	Temp. (°C)	pH (SU)	Specific Conductance (µS/cm)	Turbidity (NTU)	Color (visual)	Comments/Observations During Purging (sediment, odor, etc.)
Stabilization Criteria				N/A	± 0.1	± 5%	< 5 NTUs		
17:42	16.00	3785	3.00	15.9	6.84	329.86	24.8	Light Brown	RDO 2.09 mg/L ORP -240.6 mV
17:45	40.00	4950	6.00	17.7	7.37	351.61	94.8	Brown	RDO 2.00 mg/L ORP -253.6 mV
17:50	68.70	3800	9.00	17.5	7.48	290.27	132	Dark Brown	RDO 1.29 mg/L ORP -188.9 mV
Final Values:		17:50	9.00	17.5	7.48	290.3	132	Dark Brown	

Field Personnel Signatures:

FTL/Designee Review by: Andreas Shoredits
DL/SME Review by: Bryan Pennell

Date: 12/12/2024
Date: 1/16/2025

Signature:
Signature:

APPENDIX E

Certified Piezometer Survey



PLANT ARKWRIGHT AS-Built Wells 12-09-2024

FL Bullard - Surveyor, Southern Company CFS

WELL ID	NORTHING	EASTING	GROUND	TOP REFERENCE NAIL	BLACK MARK AT TOP CASING
ARAMW - 1	1062937.58	2439119.98	305.33	305.63	308.35
ARAMW - 2	1062926.40	2439115.34	305.08	305.48	308.28
ARAMW - 7	1063048.60	2438912.71	306.83	307.13	306.95
ARAMW - 8	1062885.53	2439112.34	304.90	305.20	307.62
ARAMW - 9	1063023.25	2438935.02	306.54	306.83	306.72
ARAMW - 10	1063082.33	2438902.85	308.39	308.69	308.49
ARAMW - 11	1063077.03	2438902.96	308.02	308.32	308.09
ARAMW - 12	1062906.98	2439199.15	305.80	306.13	309.08
GWA - 19	1063774.24	2439488.29	340.24	340.53 (Top slab no nail)	343.35
GWA - 20	1063726.52	2439080.28	327.48	327.78 (Top slab no nail)	330.63
GWC - 21	1062940.78	2439112.34	305.47	305.76	308.46
ARAMW - 22	1063038.84	2438924.29	306.74	307.04	306.80
ARGWC - 23	1062885.59	2439201.99	304.42	304.72	307.73



[Signature] 12-09-2024
 SURVEY DATA CERTIFICATION
 REFERENCE NAIL VERTICAL 0.01' HORIZ 0.10'
 BLACK MARK ON PVC CASING 0.001'

Horizontal Datum is Georgia
 State Plane West Zone Coordinate System,
 North American Datum of 1983 (NAD83)
 Elevation Datum referenced to NGVD 1988
 Both measured in US Feet

APPENDIX F

SCS Drilling Bond



CONTINUATION
CERTIFICATE

SAFECO Insurance Company of America

, Surety upon

a certain Bond No. **4993104**

dated effective June 30, 1987
(MONTH-DAY-YEAR)

on behalf of Southern Company Services, Inc.
(PRINCIPAL)

and in favor of Georgia Department of Natural Resources, Environmental Protection Division
(OBLIGEE)

does hereby continue said bond in force for the further period

beginning on June 30, 2024
(MONTH-DAY-YEAR)

and ending on June 30, 2025
(MONTH-DAY-YEAR)

Amount of bond Fifteen Thousand Dollars and 00/100 (\$15,000.00)

Description of bond Water Well Contractors & Drillers

Premium: \$100.00

PROVIDED: That this continuation certificate does not create a new obligation and is executed upon the express condition and provision that the Surety's liability under said bond and this and all Continuation Certificates issued in connection therewith shall not be cumulative and that the said Surety's aggregate liability under said bond and this and all such Continuation Certificates on account of all defaults committed during the period (regardless of the number of years) said bond had been and shall be in force, shall not in any event exceed the amount of said bond as hereinbefore set forth.

Signed and dated on 05/31/2023
(MONTH-DAY-YEAR)

SAFECO Insurance Company of America
175 Berkeley Street, Boston, MA 02116

By 
Attorney-in-Fact Jeffrey M. Wilson, Attorney-in-Fact

McGriff Insurance Services, LLC
Agent

2211 7th Avenue South, Birmingham, AL 35233
Address of Agent

(205) 252-9871
Telephone Number of Agent



Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Jeffrey M Wilson** of **BIRMINGHAM**, **Alabama**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, 2021.



State of Connecticut

City of Hartford ss.

By: 
Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, 2021, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2026




Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **31st** day of **May**, 2023




Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.

Appendix D

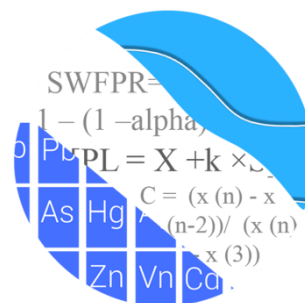
Statistical Analyses



GROUNDWATER STATS CONSULTING

February 28, 2025

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374



Re: Plant Arkwright Ash Pond 2/Dry Ash Stockpile
August 2024 Semi-Annual Sample Event

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the August 2024 Semi-Annual Groundwater Monitoring Detection and Assessment statistical analysis of monitoring data for Georgia Power Company's Plant Arkwright Ash Pond 2/Dry Ash Stockpile. The analysis complies with the Georgia Environmental Protection Division (EPD) 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 Coal Combustion Residuals (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-19 and ARGWA-20
- **Downgradient wells:** ARGWC-21, ARGWC-22, and ARGWC-23
- **Assessment wells:** ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8, and ARAMW-9

Assessment wells ARAMW-1 and ARAMW-2 were installed in 2019; wells ARAMW-7 and ARAMW-8 were installed in 2020; and well ARAMW-9 was installed in 2022 and first sampled in January 2023. All Assessment wells have a minimum of 4 samples and are, therefore, evaluated using confidence intervals for Appendix I and IV constituents.

Assessment wells do not require statistical analyses for Appendix I and III Detection monitoring constituents.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager for Groundwater Stats Consulting.

The CCR program consists of the following constituents:

- **Georgia EPD Appendix I:** arsenic, barium, cadmium, lead, selenium, and silver
- **CCR Appendix III:** boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)
- **CCR Appendix IV:** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lithium, lead, mercury, molybdenum, selenium, and thallium

Downgradient well data for Appendix I constituents were analyzed using interwell prediction limits and confidence intervals; downgradient well data for Appendix III constituents were analyzed using interwell prediction limits; and downgradient well 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 containing 100% non-detects for Appendix I Detection monitoring constituents at downgradient wells and for Appendix I and IV Assessment monitoring constituents at downgradient and assessment wells follow this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data.

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 previously provided 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 EPD Appendix I Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 5 (cadmium is 100% non-detect in downgradient wells)
- # Downgradient wells: 3

CCR Appendix III Constituents:

- Semi-Annual Sampling
- Interwell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 7
- # Downgradient wells: 3

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 recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling 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, 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 for parametric limits. 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 screening for any new outliers. In some cases, the earlier portion of data may require deselection 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

Outlier Analysis

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 wells ARGWA-19, ARGWA-20, and ARGWC-21 for Appendix I, Appendix III, and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. 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.

When the most recent values are identified as outliers in upgradient wells, those values are typically not flagged in the database (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) may be 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. A summary of flagged values is included in Figure C.

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.

Trend Test Evaluation

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at wells ARGWA-19, ARGWA-20, and ARGWC-21 to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than 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.

The results of the trend analyses were included with the previous screenings and showed a few statistically significant trends, both increasing and decreasing. No adjustments to the background period were made because the overall changes were relatively small. Since intrawell tests are not used in this current analysis, the background levels are not affected by trends in downgradient wells.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells 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 Limit Analysis of Appendix I & III Parameters – August 2024

All Appendix I and III parameters are analyzed using interwell prediction limits. Upgradient well data were reassessed for potential outliers during this analysis using visual screening. No additional values were flagged and previously flagged values were confirmed. A summary of flagged outliers follows this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through August 2024 for Appendix I and III constituents (Figures D & E, respectively). As mentioned above, downgradient wells containing 100% non-detects did not require statistical analyses. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The August 2024 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

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 and graphical results for the interwell prediction limits for Appendix I and III constituents limits follow this letter. No exceedances were identified for Appendix I well/constituent pairs. The following exceedances were identified for Appendix III well/constituent pairs:

- Boron: ARGWC-21, ARGWC-22, and ARGWC-23
- Calcium: ARGWC-21, ARGWC-22, and ARGWC-23
- Fluoride: ARGWC-23
- pH (upper limit): ARGWC-21 and ARGWC-23
- Sulfate: ARGWC-21, ARGWC-22, and ARGWC-23
- TDS ARGWC-21, ARGWC-22, and ARGWC-23

Trend Tests – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level 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 variability in groundwater quality unrelated to practices at the site. Both a summary and graphical display of the trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Boron: ARGWC-21
- Calcium: ARGWA-20 (upgradient) and ARGWC-21
- Fluoride: ARGWC-23
- Sulfate: ARGWC-21
- TDS: ARGWC-21

Decreasing:

- Sulfate: ARGWA-19 (upgradient)
- TDS: ARGWA-19 (upgradient)

Confidence Interval Analysis of Appendix I & IV Parameters – August 2024

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 well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix I and IV parameters are reassessed for outliers during each analysis. No additional values were flagged and previously flagged values were confirmed. A summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through August 2024 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, nonparametric tolerance limits were used.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). 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). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, 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, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix I and IV constituents for this sample event (Figure H).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed when a minimum of 4 samples was available using data since 2016 for each of the Appendix I and IV constituents in accordance with the state requirements in each downgradient well (Figure I). The Sanitas software was used to calculate the confidence intervals, either parametric or nonparametric, depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the appropriate order statistics, depending on the sample size, as interval limits, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The achievable confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. In the event of a confidence interval exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Note that due to a statistically significant increasing trend for lithium at downgradient well ARGWC-23 and more recent data are reported at or above the GWPS, only the most recent 8 observations were used to construct a confidence interval on stable, non-trending data (USEPA Unified Guidance, 2009, Chapter 7). A summary of the confidence intervals follows this letter. Confidence interval exceedances were identified for the following well/constituent pairs:

- Cobalt: ARAMW-7
- Lithium: ARAMW-7 and ARGWC-23
- Molybdenum: ARAMW-8

Trend Test Evaluation – Appendix IV

Assessment monitoring well/constituent pairs identified with confidence interval exceedances (which evaluate the average concentration of a group of measurements) are further evaluated using the Sen's Slope/Mann-Kendall trend test using 95% confidence (Figure J). Although the trend tests for Assessment monitoring pairs were previously evaluated using 99% confidence, the 95% confidence level more rapidly identifies statistically significant trends. Additionally, the 95% confidence level is recommended in cases with limited sample sizes and, particularly, for new assessment wells. Upgradient

wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient wells, it is an indication of variability in groundwater quality unrelated to practices at the site. The following statistically significant trend was identified:

Increasing

- Lithium: ARGWC-23
- Molybdenum: ARAMW-8

Decreasing

- Molybdenum: ARGWA-19 (upgradient)

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Arkwright Ash Pond 2/Dry Ash Stockpile. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Kristina Rayner
Senior Statistician



Andrew Collins
Project Manager

Date Ranges

Page 1

Date: 9/27/2024 2:56 PM

Plant Arkwright Client: Southern Company Data: Arkwright No 2

Lithium (mg/L)

ARGWC-23 overall: 2/10/2021-8/20/2024

100% Non-Detects - Appendix I Detection Monitoring

Analysis Run 9/26/2024 11:41 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 2

Cadmium (mg/L)

ARGWC-21, ARGWC-22, ARGWC-23

Selenium (mg/L)

ARGWC-21, ARGWC-23

Silver (mg/L)

ARGWC-22, ARGWC-23

100% Non-Detects - Appendix I and IV

Analysis Run 9/27/2024 3:01 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Antimony (mg/L)

ARAMW-1, ARAMW-2, ARAMW-7, ARGWC-21, ARGWC-22, ARGWC-23

Arsenic (mg/L)

ARAMW-9

Beryllium (mg/L)

ARAMW-1, ARAMW-2, ARAMW-8, ARGWC-21, ARAMW-9

Cadmium (mg/L)

ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8, ARGWC-21, ARGWC-22, ARGWC-23, ARAMW-9

Chromium (mg/L)

ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8, ARGWC-23, ARAMW-9

Cobalt (mg/L)

ARAMW-9

Lead (mg/L)

ARAMW-1, ARAMW-2, ARAMW-8, ARAMW-9

Mercury (mg/L)

ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8, ARGWC-23, ARAMW-9

Molybdenum (mg/L)

ARGWC-21

Selenium (mg/L)

ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8, ARGWC-21, ARGWC-23, ARAMW-9

Silver (mg/L)

ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8, ARGWC-22, ARGWC-23, ARAMW-9

Thallium (mg/L)

ARAMW-1, ARAMW-2, ARAMW-7, ARAMW-8, ARGWC-21, ARAMW-9

Appendix I Interwell Prediction Limits - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:45 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-21	0.005	n/a	8/20/2024	0.005ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-22	0.005	n/a	8/20/2024	0.005ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-23	0.005	n/a	8/20/2024	0.005ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-21	0.107	n/a	8/20/2024	0.0431	No	72	n/a	n/a	0	n/a	n/a	0.0003715	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-22	0.107	n/a	8/20/2024	0.0223	No	72	n/a	n/a	0	n/a	n/a	0.0003715	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-23	0.107	n/a	8/20/2024	0.105	No	72	n/a	n/a	0	n/a	n/a	0.0003715	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-21	0.002	n/a	8/20/2024	0.002ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-22	0.002	n/a	8/20/2024	0.002ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-23	0.002	n/a	8/20/2024	0.002ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-22	0.005	n/a	8/20/2024	0.005ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003804	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-21	0.001	n/a	8/20/2024	0.001ND	No	62	n/a	n/a	91.94	n/a	n/a	0.0004981	NP Inter (NDs) 1 of 2

Appendix III Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-21	0.092	n/a	8/20/2024	1.13	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-22	0.092	n/a	8/20/2024	3.09	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-23	0.092	n/a	8/20/2024	0.434	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-21	13.81	n/a	8/20/2024	78	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	ARGWC-22	13.81	n/a	8/20/2024	194	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	ARGWC-23	13.81	n/a	8/20/2024	79.6	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2
Fluoride (mg/L)	ARGWC-23	0.148	n/a	8/20/2024	0.365	Yes	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-21	6.086	5.41	8/20/2024	6.2	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2
pH (SU)	ARGWC-23	6.086	5.41	8/20/2024	6.34	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2
Sulfate (mg/L)	ARGWC-21	21	n/a	8/20/2024	219	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-22	21	n/a	8/20/2024	674	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-23	21	n/a	8/20/2024	80.1	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-21	141.1	n/a	8/20/2024	520	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-22	141.1	n/a	8/20/2024	1180	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-23	141.1	n/a	8/20/2024	328	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-21	0.092	n/a	8/20/2024	1.13	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality)	1 of 2
Boron (mg/L)	ARGWC-22	0.092	n/a	8/20/2024	3.09	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality)	1 of 2
Boron (mg/L)	ARGWC-23	0.092	n/a	8/20/2024	0.434	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality)	1 of 2
Calcium (mg/L)	ARGWC-21	13.81	n/a	8/20/2024	78	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2	
Calcium (mg/L)	ARGWC-22	13.81	n/a	8/20/2024	194	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2	
Calcium (mg/L)	ARGWC-23	13.81	n/a	8/20/2024	79.6	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2	
Chloride (mg/L)	ARGWC-21	16.2	n/a	8/20/2024	3.18	No	68	n/a	n/a	0	n/a	n/a	0.0004166	NP Inter (normality)	1 of 2
Chloride (mg/L)	ARGWC-22	16.2	n/a	8/20/2024	7.25	No	68	n/a	n/a	0	n/a	n/a	0.0004166	NP Inter (normality)	1 of 2
Chloride (mg/L)	ARGWC-23	16.2	n/a	8/20/2024	3.68	No	68	n/a	n/a	0	n/a	n/a	0.0004166	NP Inter (normality)	1 of 2
Fluoride (mg/L)	ARGWC-21	0.148	n/a	8/20/2024	0.124	No	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality)	1 of 2
Fluoride (mg/L)	ARGWC-22	0.148	n/a	8/20/2024	0.066J	No	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality)	1 of 2
Fluoride (mg/L)	ARGWC-23	0.148	n/a	8/20/2024	0.365	Yes	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality)	1 of 2
pH (SU)	ARGWC-21	6.086	5.41	8/20/2024	6.2	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2	
pH (SU)	ARGWC-22	6.086	5.41	8/20/2024	5.76	No	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2	
pH (SU)	ARGWC-23	6.086	5.41	8/20/2024	6.34	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2	
Sulfate (mg/L)	ARGWC-21	21	n/a	8/20/2024	219	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality)	1 of 2
Sulfate (mg/L)	ARGWC-22	21	n/a	8/20/2024	674	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality)	1 of 2
Sulfate (mg/L)	ARGWC-23	21	n/a	8/20/2024	80.1	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality)	1 of 2
Total Dissolved Solids (mg/L)	ARGWC-21	141.1	n/a	8/20/2024	520	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	ARGWC-22	141.1	n/a	8/20/2024	1180	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	ARGWC-23	141.1	n/a	8/20/2024	328	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2	

Appendix III Trend Test - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:53 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	ARGWC-21	0.07619	175	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWA-20 (bg)	0.2776	95	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWC-21	4.91	160	87	Yes	21	0	0.01	NP
Fluoride (mg/L)	ARGWC-23	0.08957	105	74	Yes	19	0	0.01	NP
Sulfate (mg/L)	ARGWA-19 (bg)	-0.2378	-276	-176	Yes	34	0	0.01	NP
Sulfate (mg/L)	ARGWC-21	8.192	422	176	Yes	34	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWA-19 (bg)	-5.289	-84	-81	Yes	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-21	27.93	146	81	Yes	20	0	0.01	NP

Appendix III Trend Test - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:53 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	ARGWA-19 (bg)	0	-2	-87	No	21	33.33	0.01	NP
Boron (mg/L)	ARGWA-20 (bg)	0.003024	58	87	No	21	19.05	0.01	NP
Boron (mg/L)	ARGWC-21	0.07619	175	87	Yes	21	0	0.01	NP
Boron (mg/L)	ARGWC-22	0.07412	41	74	No	19	0	0.01	NP
Boron (mg/L)	ARGWC-23	0.007449	32	74	No	19	0	0.01	NP
Calcium (mg/L)	ARGWA-19 (bg)	-0.4657	-75	-87	No	21	0	0.01	NP
Calcium (mg/L)	ARGWA-20 (bg)	0.2776	95	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWC-21	4.91	160	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWC-22	0	-2	-74	No	19	0	0.01	NP
Calcium (mg/L)	ARGWC-23	2.173	69	74	No	19	0	0.01	NP
Fluoride (mg/L)	ARGWA-19 (bg)	0	21	98	No	23	34.78	0.01	NP
Fluoride (mg/L)	ARGWA-20 (bg)	0	-2	-98	No	23	47.83	0.01	NP
Fluoride (mg/L)	ARGWC-23	0.08957	105	74	Yes	19	0	0.01	NP
pH (SU)	ARGWA-19 (bg)	0.008207	32	92	No	22	0	0.01	NP
pH (SU)	ARGWA-20 (bg)	0.0127	41	98	No	23	0	0.01	NP
pH (SU)	ARGWC-21	-0.01714	-50	-98	No	23	0	0.01	NP
pH (SU)	ARGWC-23	-0.005069	-8	-74	No	19	0	0.01	NP
Sulfate (mg/L)	ARGWA-19 (bg)	-0.2378	-276	-176	Yes	34	0	0.01	NP
Sulfate (mg/L)	ARGWA-20 (bg)	-0.03643	-70	-167	No	33	0	0.01	NP
Sulfate (mg/L)	ARGWC-21	8.192	422	176	Yes	34	0	0.01	NP
Sulfate (mg/L)	ARGWC-22	-17.79	-32	-74	No	19	0	0.01	NP
Sulfate (mg/L)	ARGWC-23	2.748	49	74	No	19	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWA-19 (bg)	-5.289	-84	-81	Yes	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWA-20 (bg)	0.2883	24	81	No	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-21	27.93	146	81	Yes	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-22	-27.81	-60	-68	No	18	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-23	1.889	23	68	No	18	0	0.01	NP

Upper Tolerance Limits

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 12:01 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	34	100	n/a	0.1748	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	72	87.5	n/a	0.02489	NP Inter(NDs)
Barium (mg/L)	n/a	0.107	n/a	n/a	n/a	72	0	n/a	0.02489	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	38	92.11	n/a	0.1424	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	70	98.57	n/a	0.02758	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	42	26.19	n/a	0.116	NP Inter(normality)
Cobalt (mg/L)	n/a	0.001	n/a	n/a	n/a	44	68.18	n/a	0.1047	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	2.65	n/a	n/a	n/a	42	2.381	n/a	0.116	NP Inter(normality)
Fluoride (mg/L)	n/a	0.148	n/a	n/a	n/a	46	41.3	n/a	0.09447	NP Inter(normality)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	72	87.5	n/a	0.02489	NP Inter(NDs)
Lithium (mg/L)	n/a	0.013	n/a	n/a	n/a	44	43.18	n/a	0.1047	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	34	94.12	n/a	0.1748	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.001	n/a	n/a	n/a	40	82.5	n/a	0.1285	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	71	67.61	n/a	0.0262	NP Inter(NDs)
Silver (mg/L)	n/a	0.001	n/a	n/a	n/a	62	91.94	n/a	0.04158	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)

PLANT ARKWRIGHT AP #2 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.11	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.001	0.006
Combined Radium, Total (pCi/L)	5		2.65	5
Fluoride, Total (mg/L)	4		0.15	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.013	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.001	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Silver, Total (mg/L)	n/a		0.001	0.001
Thallium, Total (mg/L)	0.002		0.002	0.002

*MCL = Maximum Contaminant Level

*GWPS = Groundwater Protection Standard

*CCR = Coal Combustion Residuals

Confidence Interval Summary Table - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/30/2024, 1:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	ARAMW-7	0.07537	0.04752	0.006	Yes 9	0.05887	0.02163	0	None	x^3	0.01	Param.
Lithium (mg/L)	ARAMW-7	0.0779	0.0577	0.04	Yes 9	0.06306	0.006339	0	None	No	0.002	NP (normality)
Lithium (mg/L)	ARGWC-23	0.05532	0.04518	0.04	Yes 8	0.05025	0.00478	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-8	0.2005	0.1024	0.1	Yes 9	0.1479	0.06261	0	None	x^2	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/30/2024, 1:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	ARAMW-8	0.003	0.00134	0.006	No 7	0.002763	0.0006274	85.71	None	No	0.008	NP (NDs)
Antimony (mg/L)	ARAMW-9	0.001904	0.0007461	0.006	No 4	0.002163	0.0009892	50	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	ARAMW-1	0.005	0.005	0.01	No 10	0.004733	0.0008443	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	ARAMW-2	0.03334	0.004106	0.01	No 10	0.02008	0.02536	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	ARAMW-7	0.005	0.00035	0.01	No 8	0.003269	0.002007	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	ARAMW-8	0.005	0.00031	0.01	No 8	0.003479	0.002163	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	ARGWC-21	0.005	0.0019	0.01	No 23	0.003027	0.001674	39.13	None	No	0.01	NP (normality)
Arsenic (mg/L)	ARGWC-22	0.005	0.00221	0.01	No 18	0.004092	0.001787	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-23	0.005	0.00075	0.01	No 18	0.004248	0.001731	83.33	None	No	0.01	NP (NDs)
Barium (mg/L)	ARAMW-1	0.05151	0.04251	2	No 10	0.04701	0.005048	0	None	No	0.01	Param.
Barium (mg/L)	ARAMW-2	0.1083	0.06061	2	No 10	0.08467	0.02857	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	ARAMW-7	0.03217	0.02428	2	No 8	0.02818	0.004008	0	None	ln(x)	0.01	Param.
Barium (mg/L)	ARAMW-8	0.1173	0.0939	2	No 8	0.1056	0.01106	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-21	0.12	0.045	2	No 23	0.08066	0.03529	0	None	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-22	0.04571	0.02815	2	No 18	0.0381	0.01609	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	ARGWC-23	0.1437	0.09733	2	No 18	0.1205	0.03829	0	None	No	0.01	Param.
Barium (mg/L)	ARAMW-9	0.02495	0.004949	2	No 4	0.01495	0.004405	0	None	No	0.01	Param.
Beryllium (mg/L)	ARAMW-7	0.0025	0.000236	0.004	No 8	0.001125	0.001139	37.5	None	No	0.004	NP (normality)
Beryllium (mg/L)	ARGWC-22	0.0005	0.00036	0.004	No 17	0.0004388	0.0001192	70.59	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-23	0.0005	0.00033	0.004	No 17	0.00049	0.00004123	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-21	0.01	0.0017	0.1	No 21	0.009605	0.001811	95.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-22	0.01	0.0048	0.1	No 18	0.009711	0.001226	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARAMW-1	0.0008499	0.0004085	0.006	No 11	0.0006354	0.0002714	9.091	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	ARAMW-2	0.002936	0.002064	0.006	No 11	0.0025	0.0005235	0	None	No	0.01	Param.
Cobalt (mg/L)	ARAMW-7	0.07537	0.04752	0.006	Yes 9	0.05887	0.02163	0	None	x^3	0.01	Param.
Cobalt (mg/L)	ARAMW-8	0.005031	0.002407	0.006	No 9	0.003719	0.001359	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-21	0.0018	0.0007	0.006	No 22	0.001279	0.0005844	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	ARGWC-22	0.00766	0.002677	0.006	No 19	0.005733	0.00496	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-23	0.001791	0.0007307	0.006	No 19	0.00153	0.001291	5.263	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-1	4.227	0.4887	5	No 10	2.418	2.732	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-2	5.492	2.154	5	No 10	3.879	2.411	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-7	5.122	3.943	5	No 8	4.533	0.5562	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-8	2.547	0.1616	5	No 8	1.275	1.233	12.5	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-21	1.349	0.608	5	No 21	1.219	1.204	4.762	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-22	1.169	0.4018	5	No 18	0.8644	0.7312	5.556	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-23	0.9762	0.1958	5	No 18	0.7036	0.8296	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-9	5.909	-0.8624	5	No 4	2.523	1.491	0	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-1	0.2184	0.1645	4	No 11	0.1915	0.03238	0	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-2	0.1417	0.08199	4	No 11	0.1118	0.0358	9.091	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-7	0.1031	0.03332	4	No 9	0.08711	0.03443	33.33	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	ARAMW-8	0.2498	0.1705	4	No 9	0.2101	0.04107	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-21	0.1557	0.09039	4	No 23	0.138	0.1027	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	ARGWC-22	0.134	0.045	4	No 19	0.08105	0.05799	15.79	None	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-23	0.3682	0.2266	4	No 19	0.2974	0.1209	0	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-9	1.042	0.7759	4	No 4	0.9088	0.05851	0	None	No	0.01	Param.
Lead (mg/L)	ARAMW-7	0.002	0.00013	0.015	No 8	0.001766	0.0006611	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	ARGWC-21	0.002	0.00026	0.015	No 23	0.001844	0.0005174	91.3	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-22	0.002	0.00022	0.015	No 18	0.001798	0.0005887	88.89	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-23	0.002	0.00026	0.015	No 18	0.001802	0.0005758	88.89	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARAMW-1	0.009982	0.008532	0.04	No 12	0.009236	0.0009998	0	None	x^2	0.01	Param.
Lithium (mg/L)	ARAMW-2	0.036	0.0172	0.04	No 12	0.0267	0.01943	0	None	No	0.01	NP (normality)
Lithium (mg/L)	ARAMW-7	0.0779	0.0577	0.04	Yes 9	0.06306	0.006339	0	None	No	0.002	NP (normality)
Lithium (mg/L)	ARAMW-8	0.006662	0.005466	0.04	No 9	0.00605	0.0007237	0	None	x^3	0.01	Param.
Lithium (mg/L)	ARGWC-21	0.01221	0.009968	0.04	No 22	0.01109	0.002084	0	None	No	0.01	Param.
Lithium (mg/L)	ARGWC-22	0.02372	0.01529	0.04	No 19	0.01951	0.007205	0	None	No	0.01	Param.

Confidence Interval Summary Table - All Results

Page 2

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/30/2024, 1:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	ARGWC-23	0.05532	0.04518	0.04	Yes 8	0.05025	0.00478	0	None	No	0.01	Param.
Lithium (mg/L)	ARAMW-9	0.01179	0	0.04	No 4	0.007975	0.002264	0	None	x^2	0.01	Param.
Mercury (mg/L)	ARGWC-21	0.0002	0.000073	0.002	No 17	0.0001925	0.0000308	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	ARGWC-22	0.000372	0.0002	0.002	No 15	0.0002115	0.00004441	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-1	0.008455	0.005284	0.1	No 11	0.006869	0.001903	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-2	0.015	0.000585	0.1	No 11	0.007281	0.007394	45.45	None	No	0.006	NP (normality)
Molybdenum (mg/L)	ARAMW-7	0.0012	0.000257	0.1	No 9	0.0008707	0.0003215	66.67	None	No	0.002	NP (NDs)
Molybdenum (mg/L)	ARAMW-8	0.2005	0.1024	0.1	Yes 9	0.1479	0.06261	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	ARGWC-22	0.015	0.000496	0.1	No 18	0.007859	0.007356	50	None	No	0.01	NP (normality)
Molybdenum (mg/L)	ARGWC-23	0.06445	0.04668	0.1	No 18	0.05339	0.0183	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	ARAMW-9	0.01998	0	0.1	No 4	0.008525	0.005046	0	None	No	0.01	Param.
Selenium (mg/L)	ARGWC-22	0.005	0.002	0.05	No 18	0.004833	0.0007071	94.44	None	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-21	0.001	0.00043	0.001	No 18	0.0009683	0.0001344	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-22	0.002	0.00035	0.002	No 15	0.001583	0.0007244	73.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-23	0.002	0.00028	0.002	No 15	0.001653	0.0007177	80	None	No	0.01	NP (NDs)

Appendix IV Trend Tests - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/27/2024, 3:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (mg/L)	ARGWC-23	0.008693	127	58	Yes	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARAMW-8	0.03468	28	20	Yes	9	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARGWA-19 (bg)	-0.00008875	-92	-62	Yes	20	65	n/a	n/a	0.05	NP

Appendix IV Trend Tests - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/27/2024, 3:13 PM

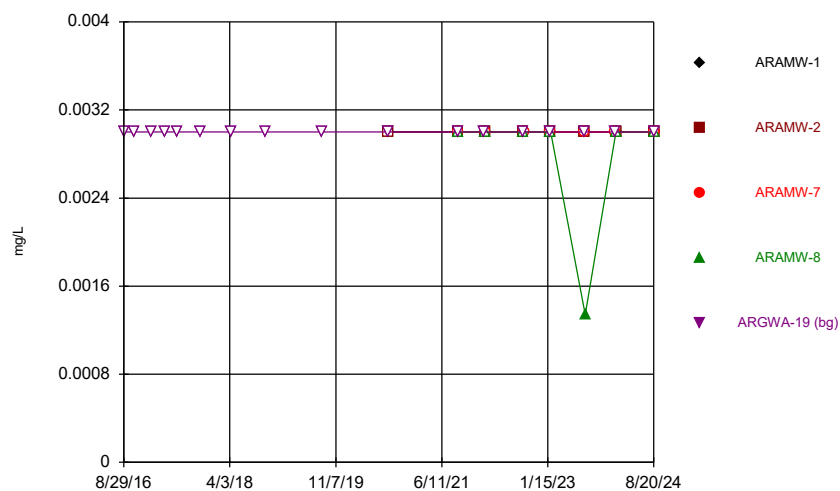
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	ARAMW-7	-0.0001726	0	20	No	9	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	ARGWA-19 (bg)	0	5	71	No	22	81.82	n/a	n/a	0.05	NP
Cobalt (mg/L)	ARGWA-20 (bg)	0	-22	-71	No	22	54.55	n/a	n/a	0.05	NP
Lithium (mg/L)	ARAMW-7	0	0	20	No	9	0	n/a	n/a	0.05	NP
Lithium (mg/L)	ARGWA-19 (bg)	-0.0001902	-68	-71	No	22	4.545	n/a	n/a	0.05	NP
Lithium (mg/L)	ARGWA-20 (bg)	0	6	71	No	22	81.82	n/a	n/a	0.05	NP
Lithium (mg/L)	ARGWC-23	0.008693	127	58	Yes	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARAMW-8	0.03468	28	20	Yes	9	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARGWA-19 (bg)	-0.00008875	-92	-62	Yes	20	65	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARGWA-20 (bg)	0	0	62	No	20	100	n/a	n/a	0.05	NP

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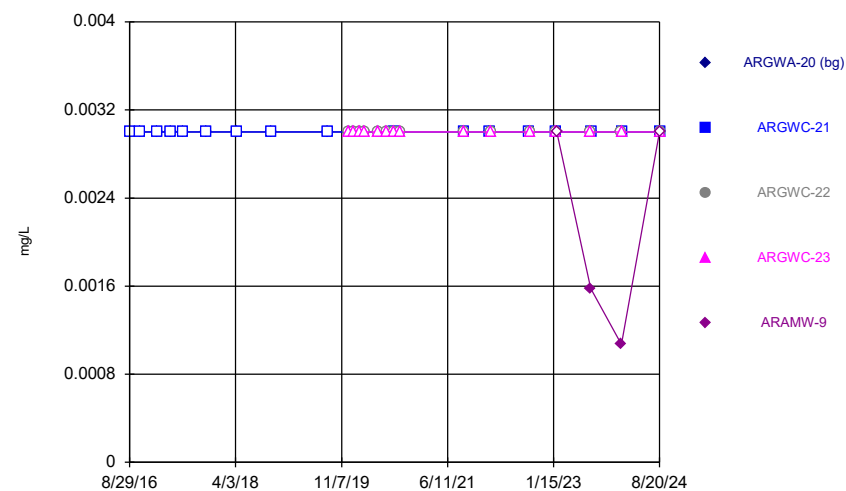
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FIGURE A.

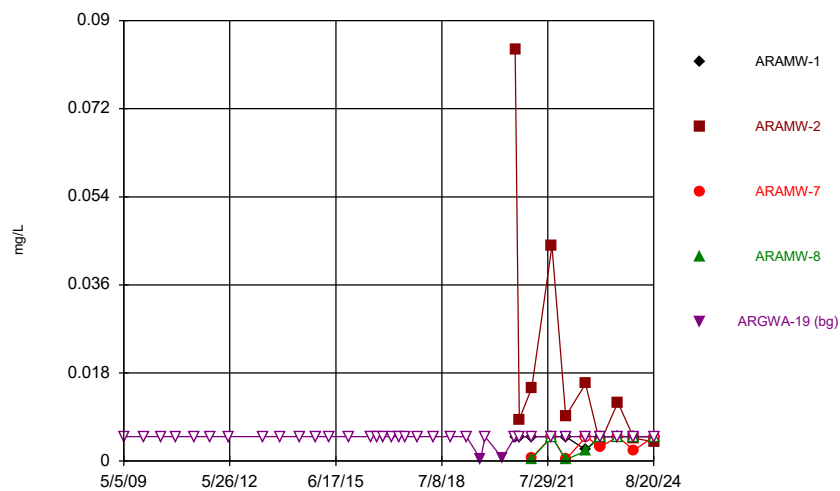
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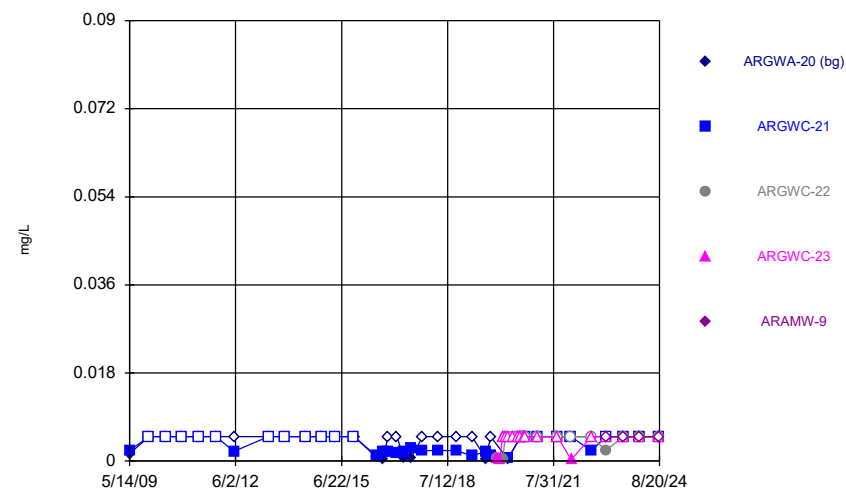
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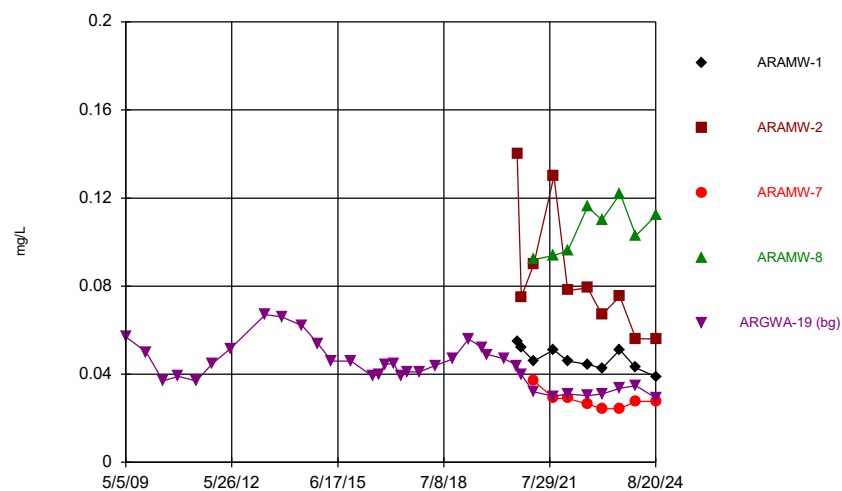
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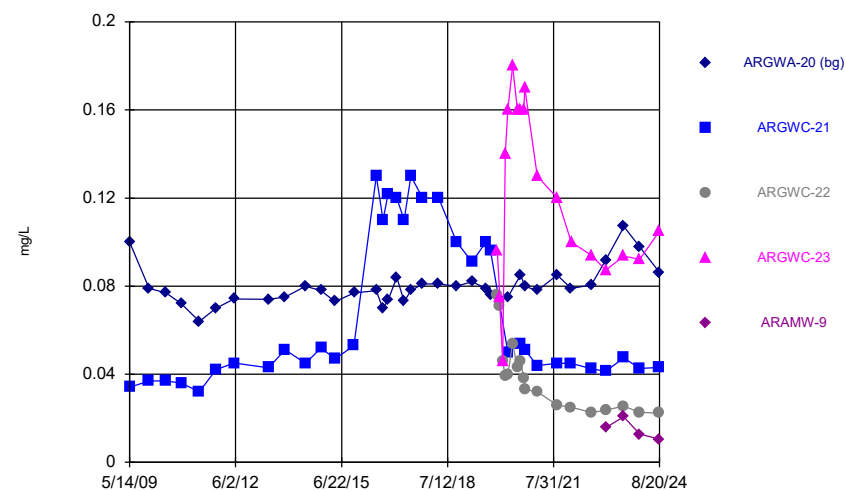
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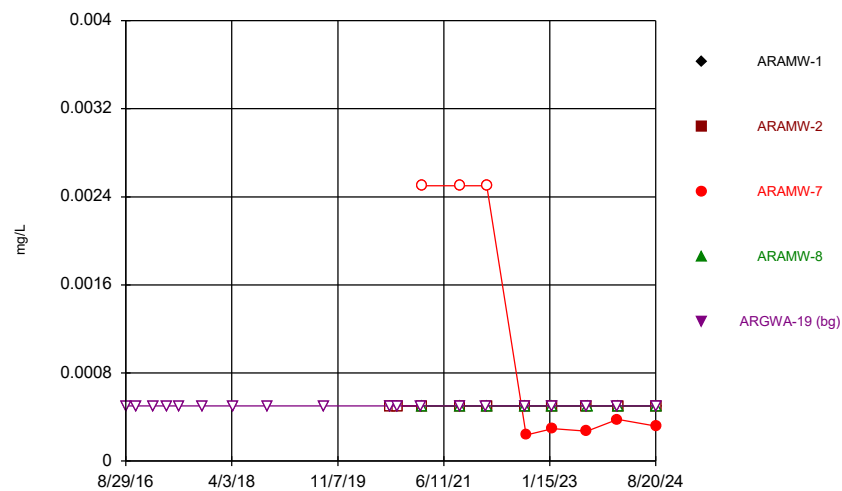
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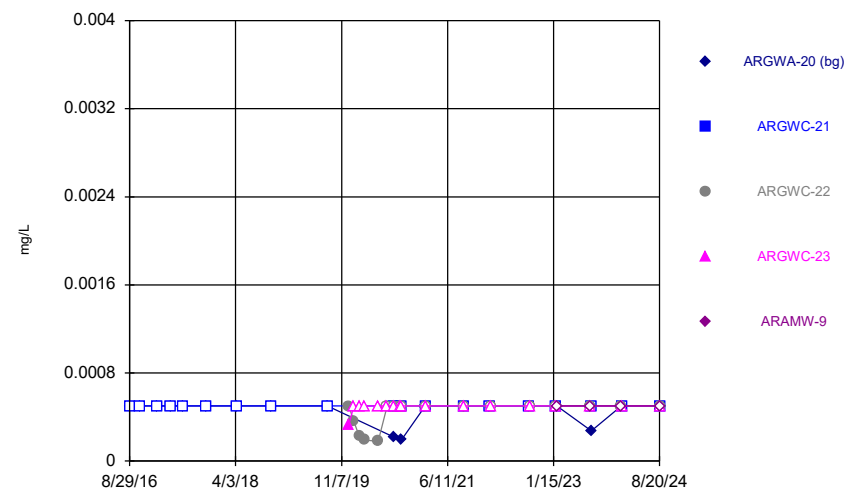
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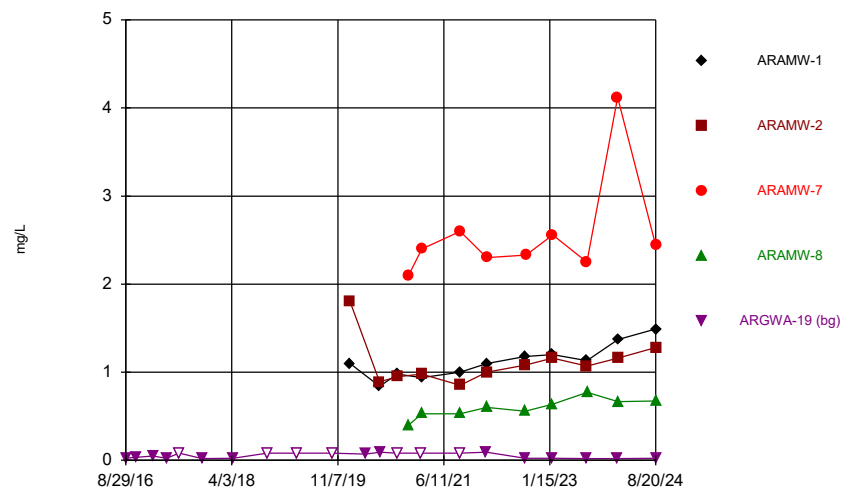
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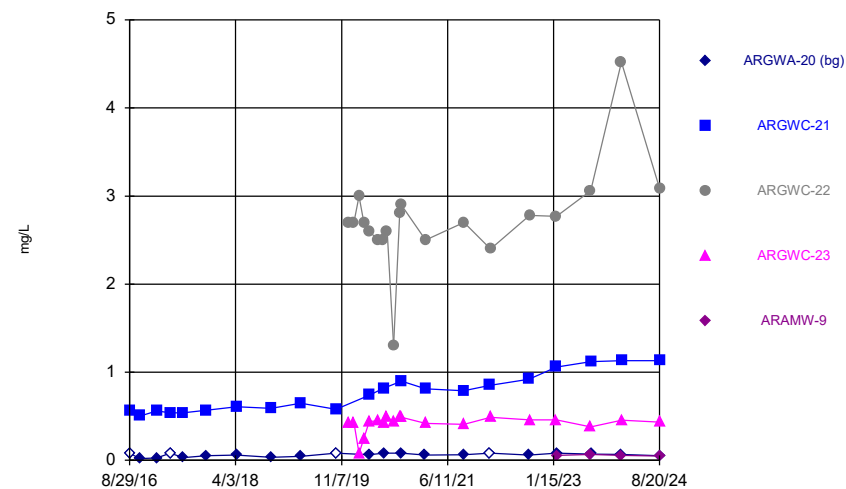
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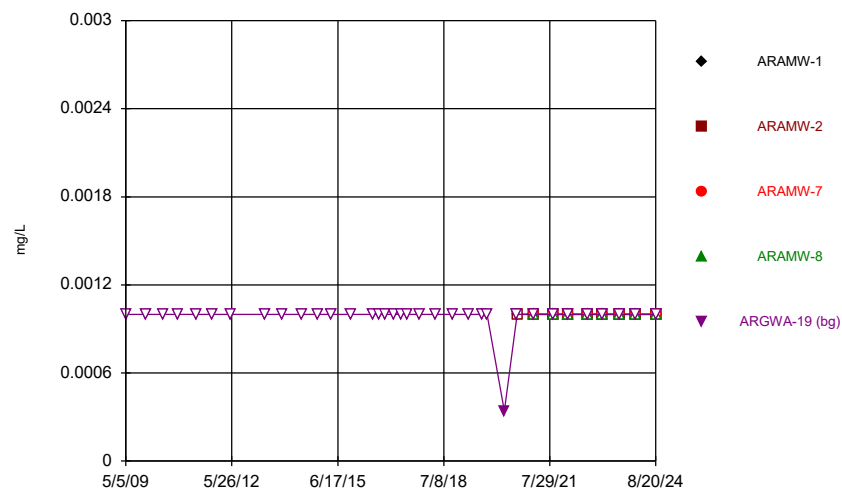
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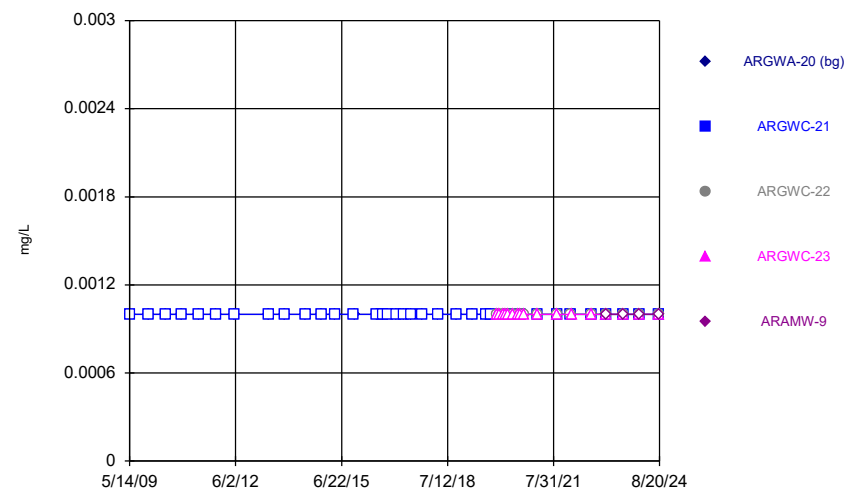
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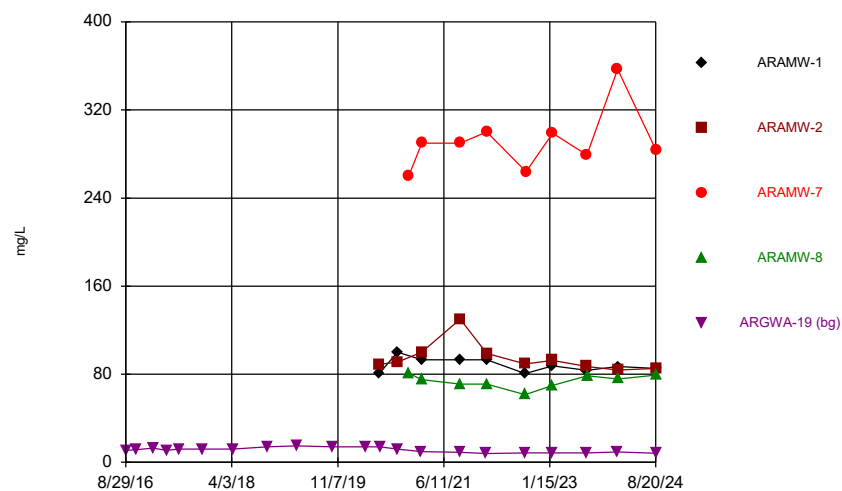
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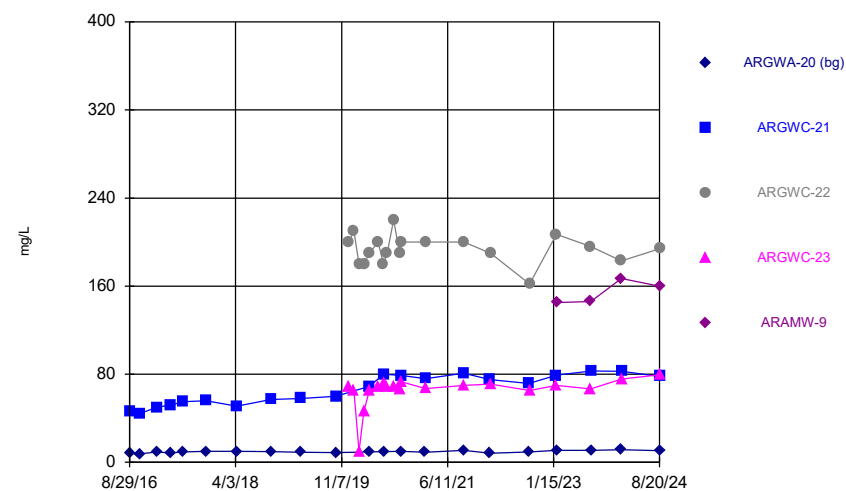
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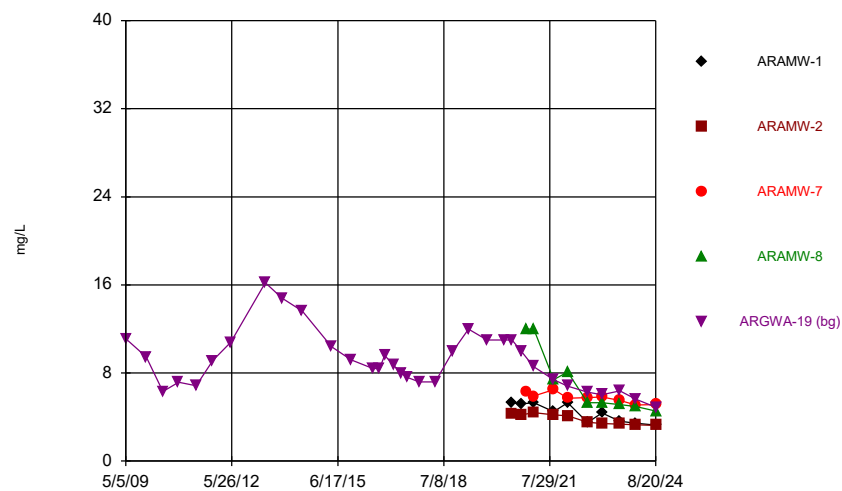
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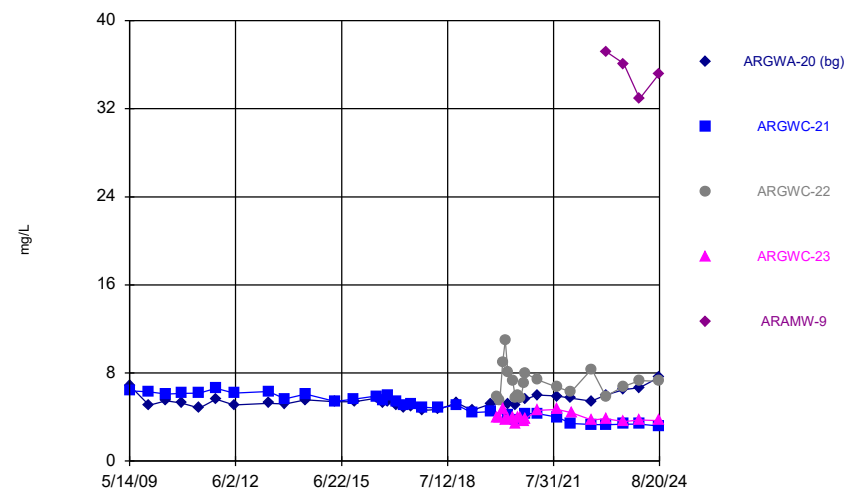
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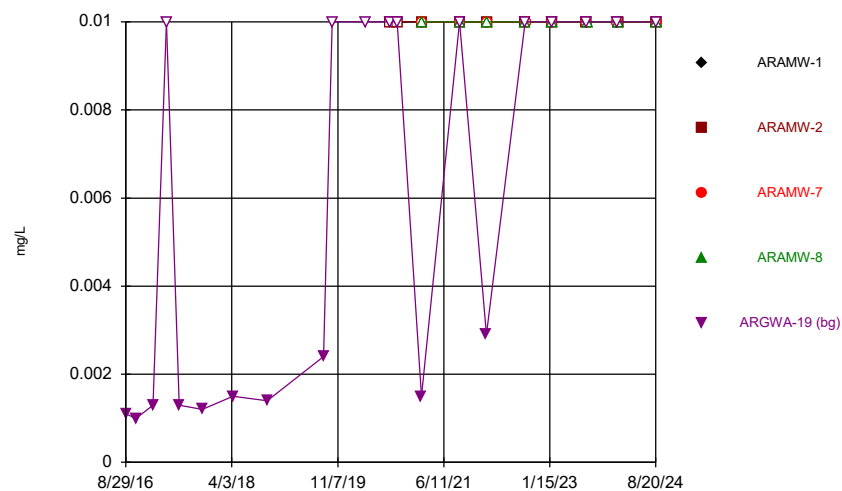
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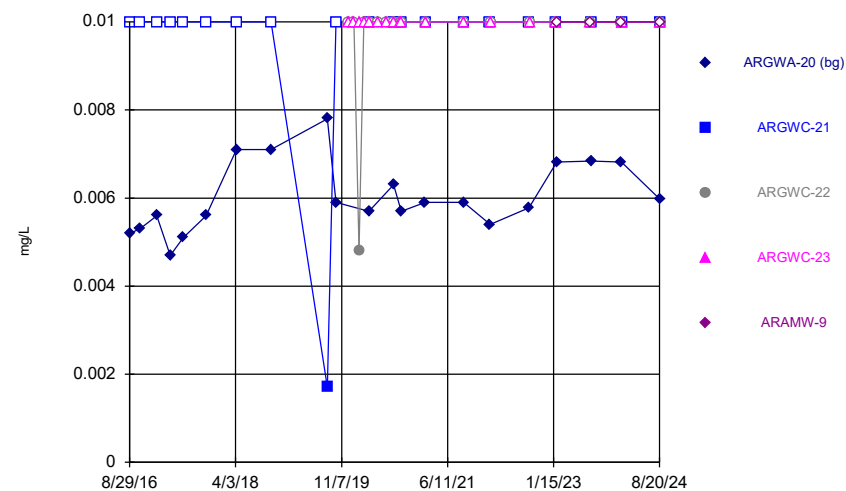


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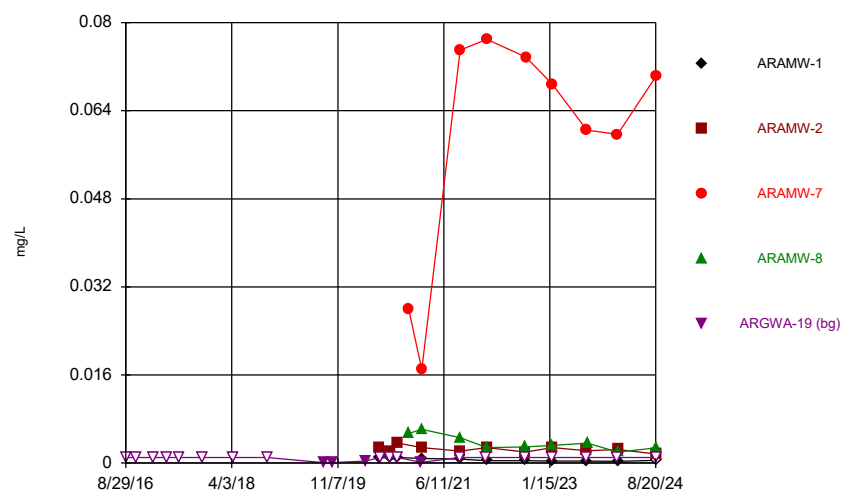
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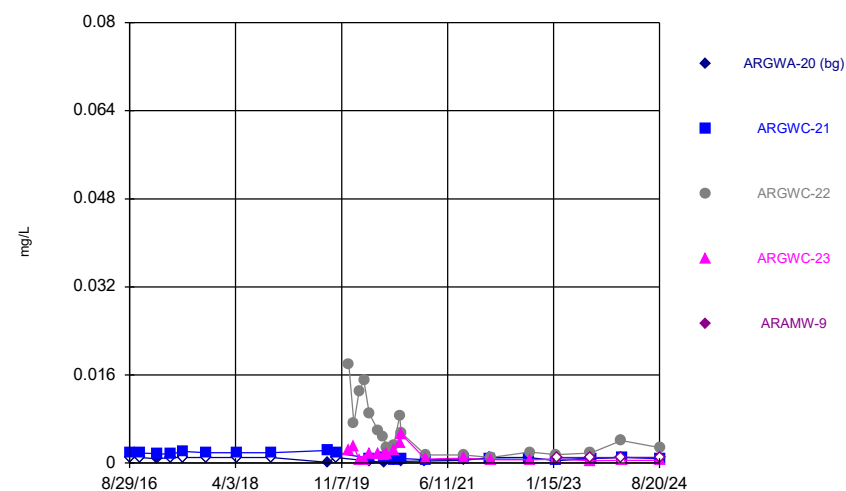
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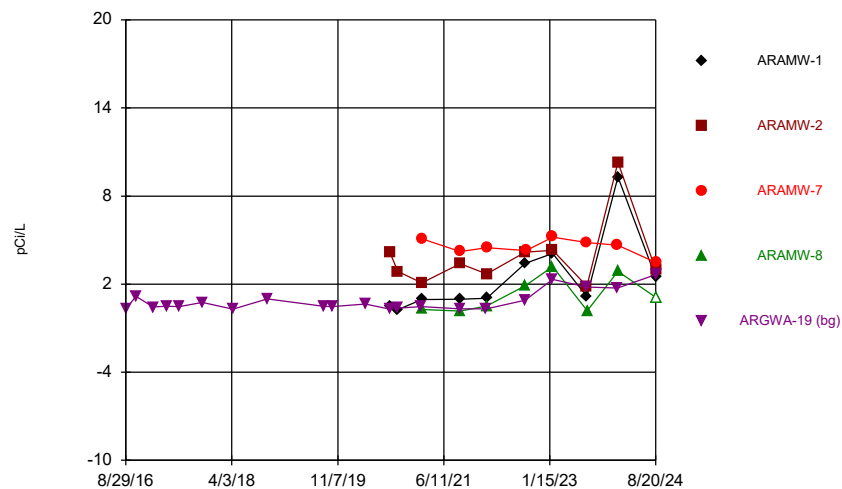
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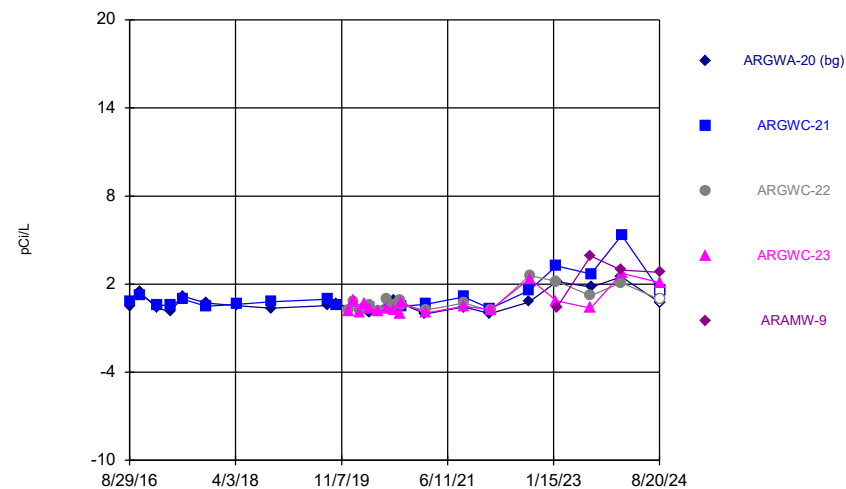


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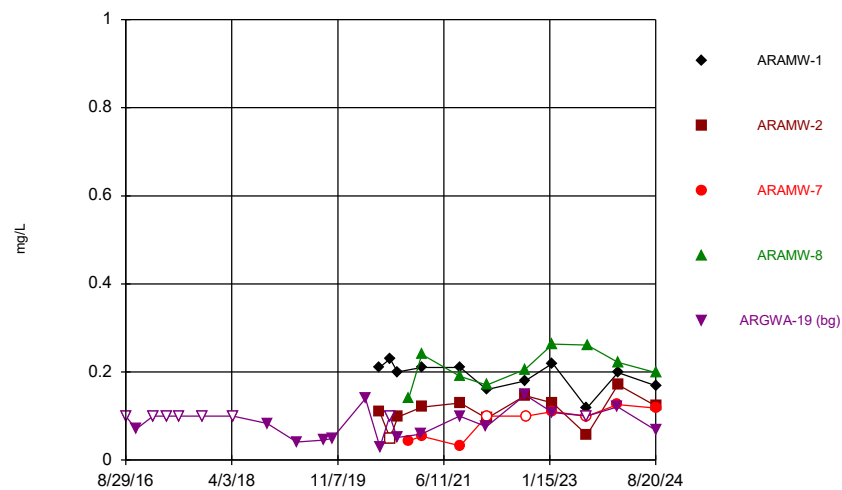
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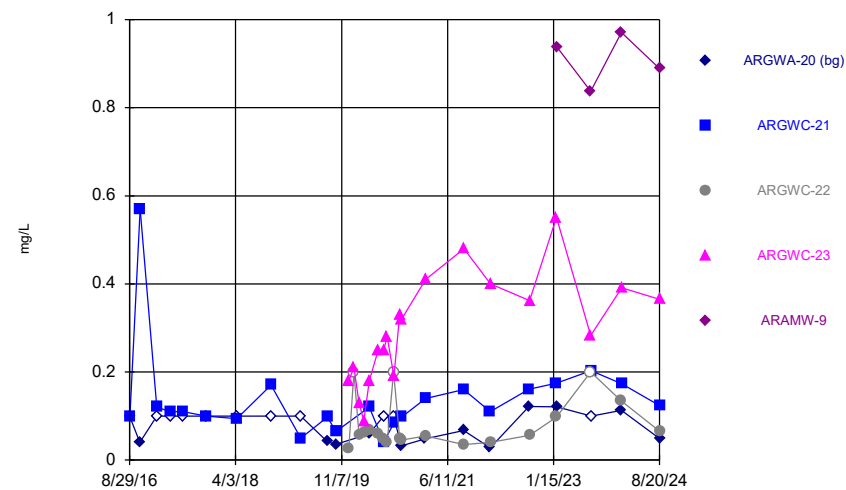
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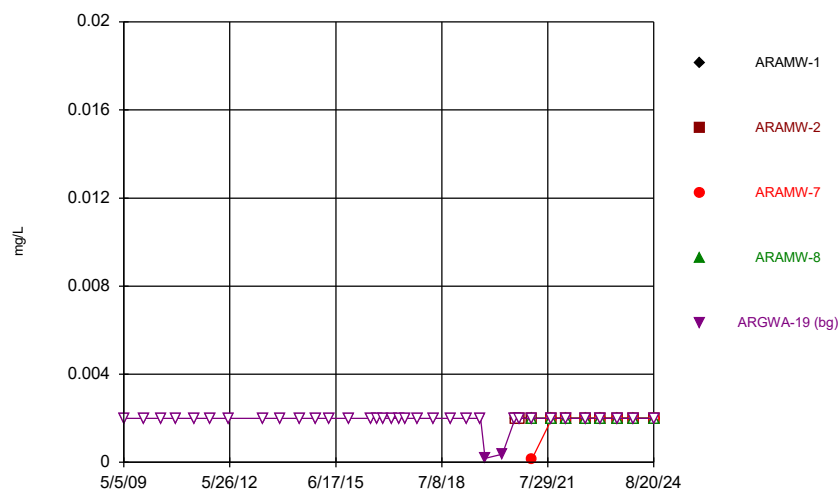
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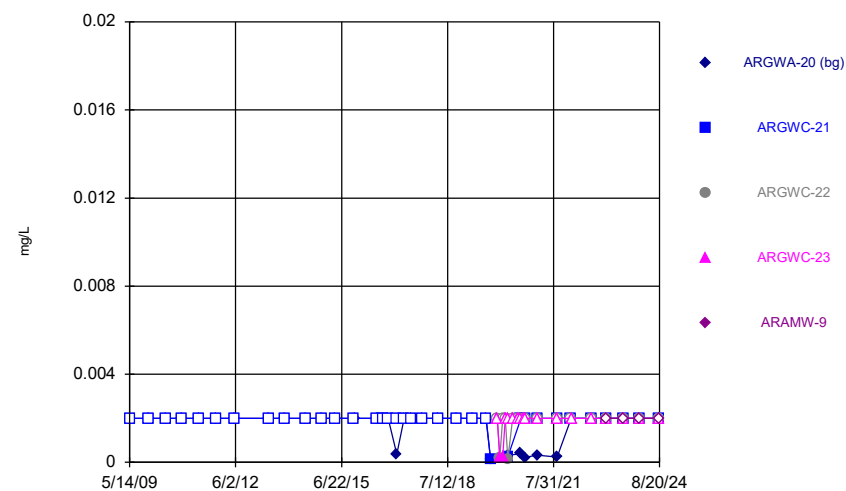


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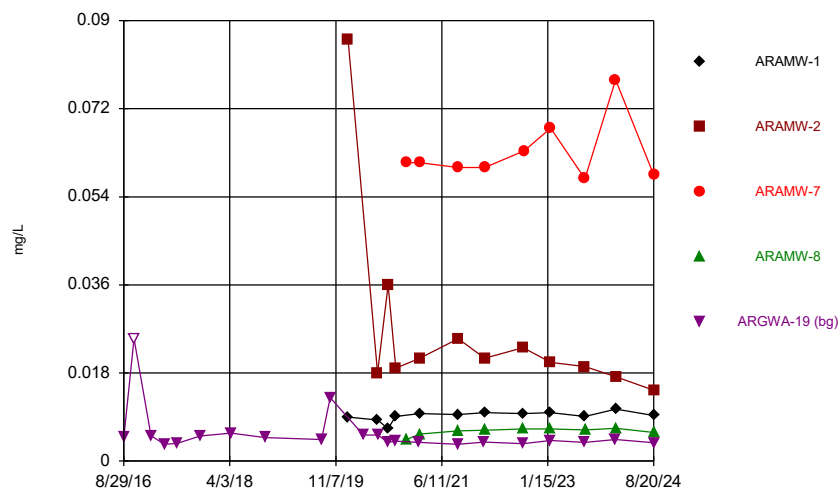
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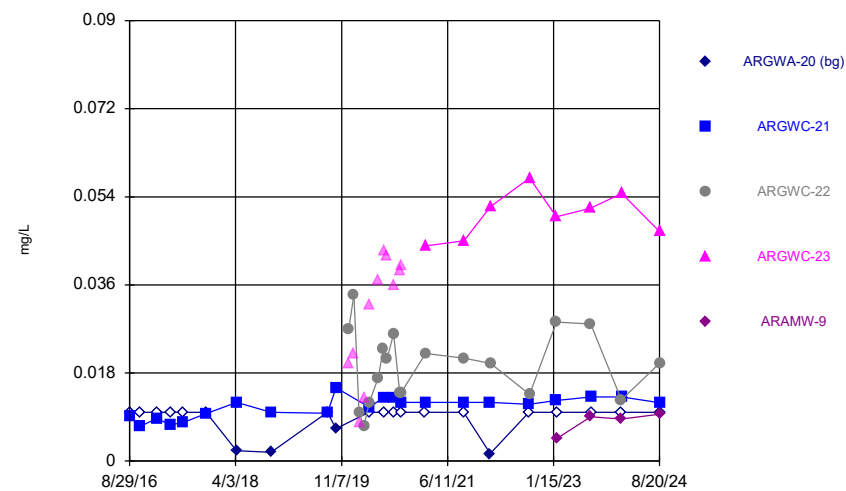
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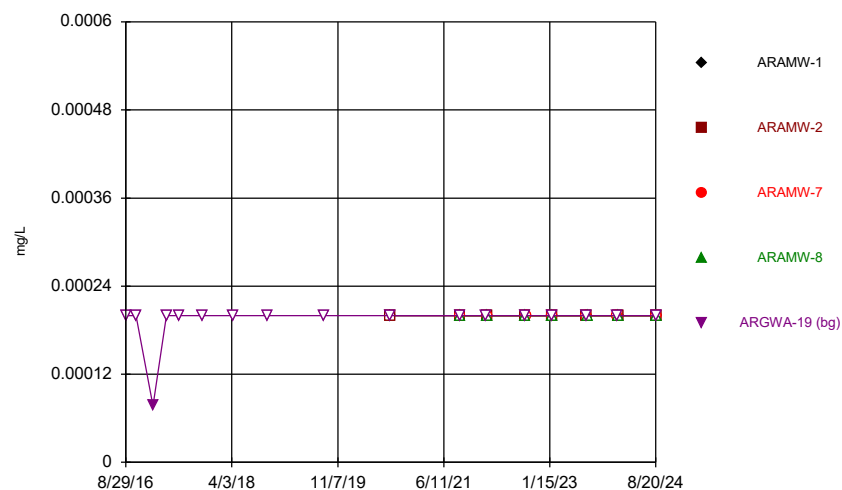
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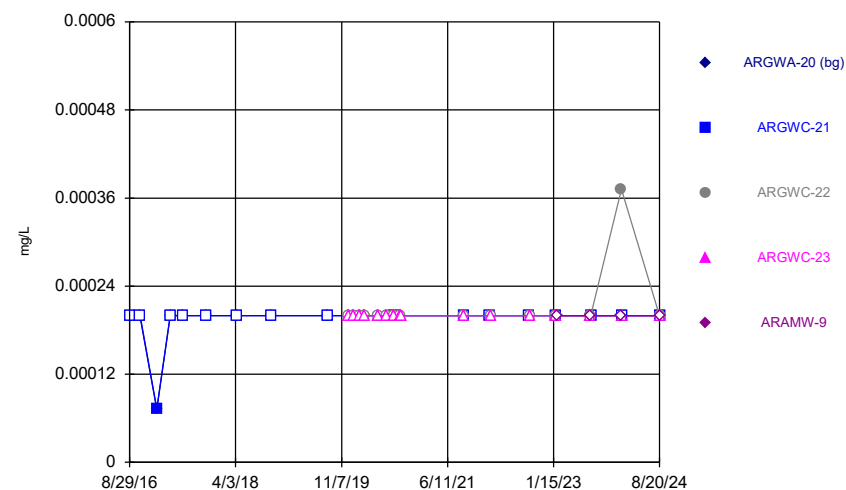
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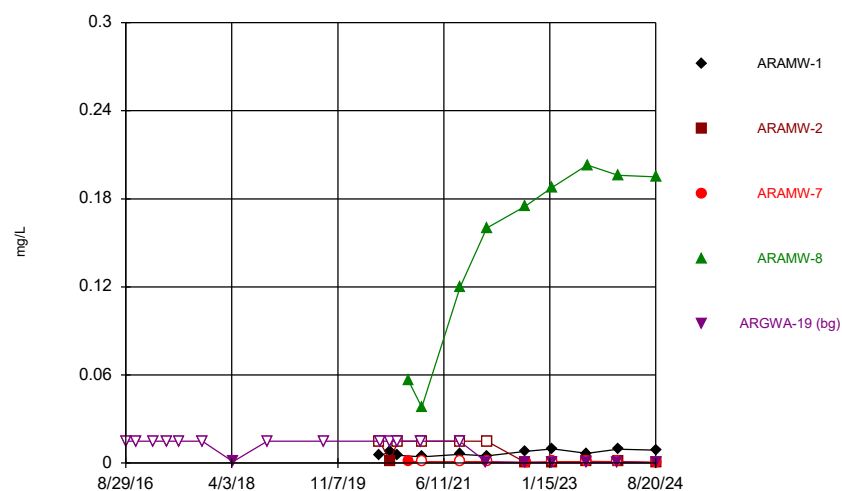
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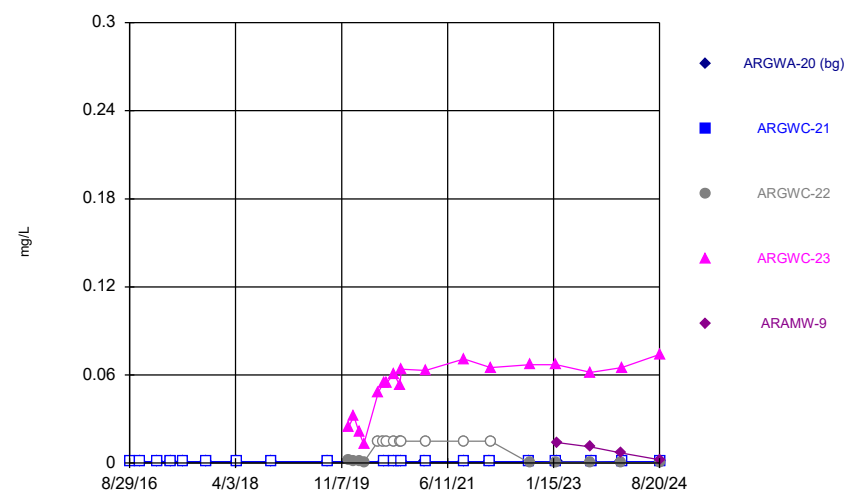
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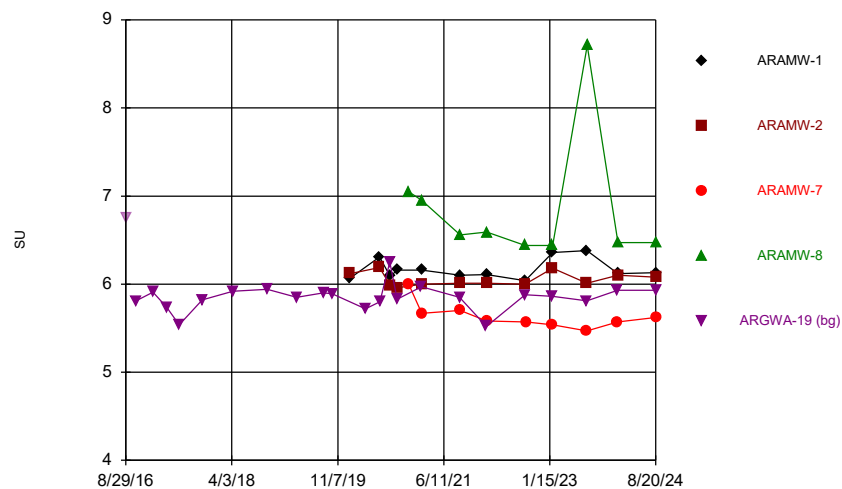
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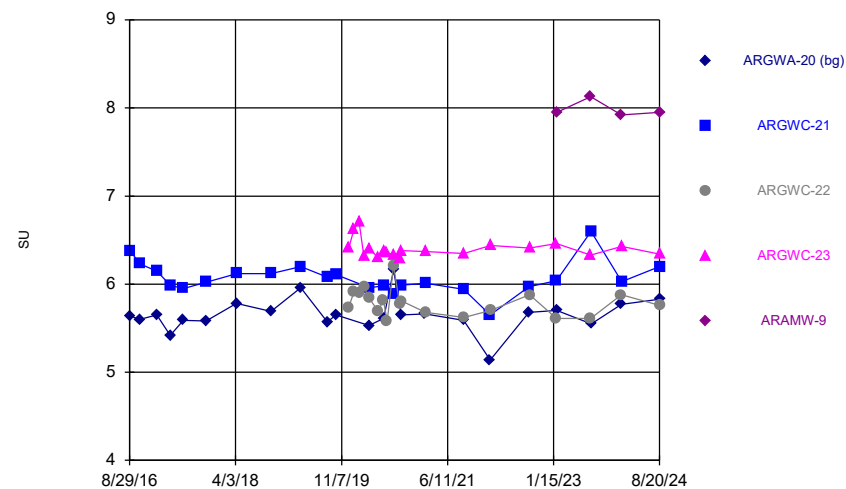
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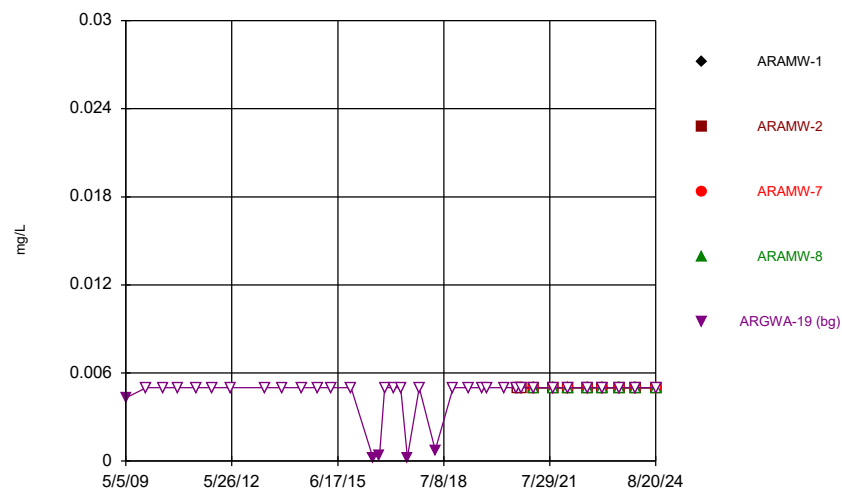
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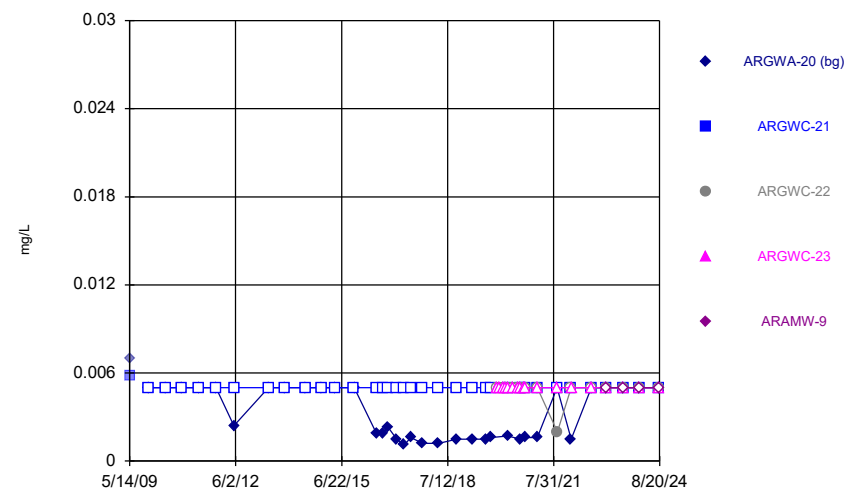
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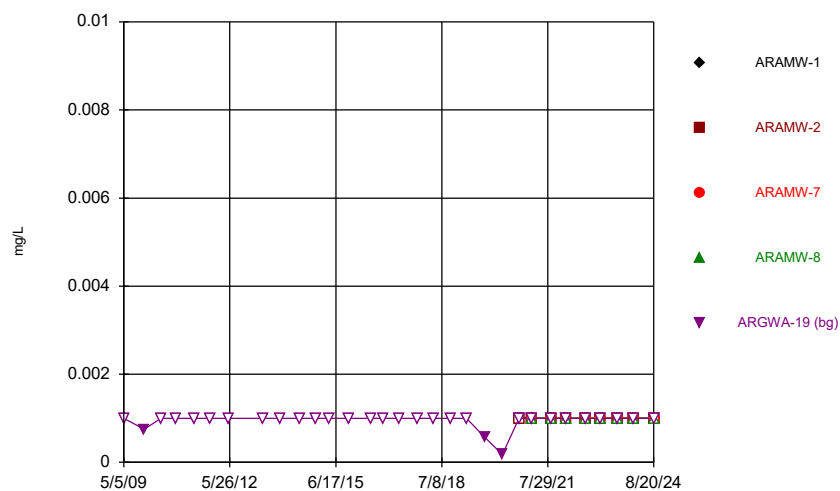
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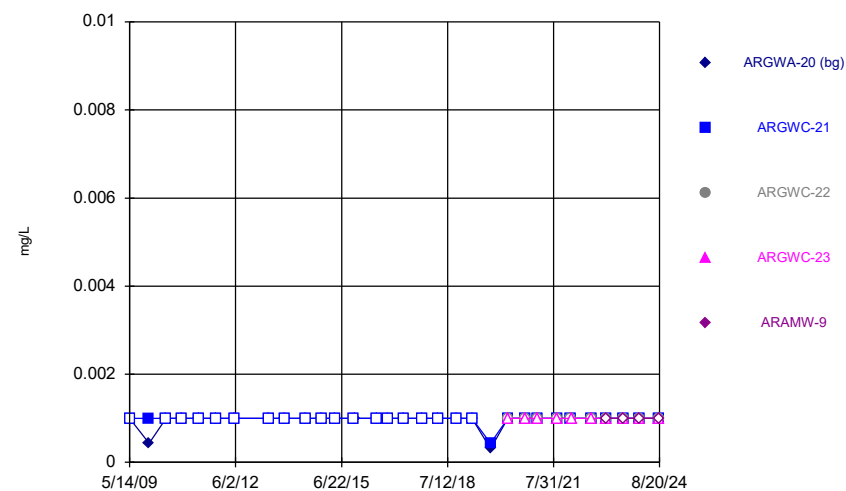


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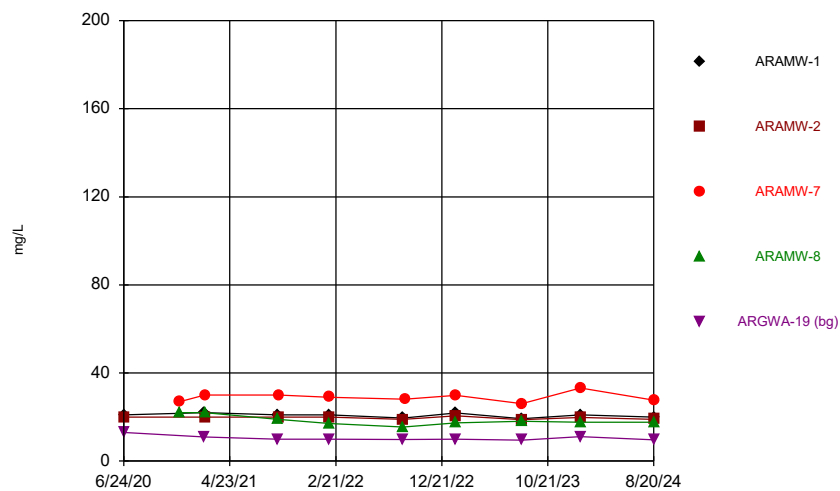
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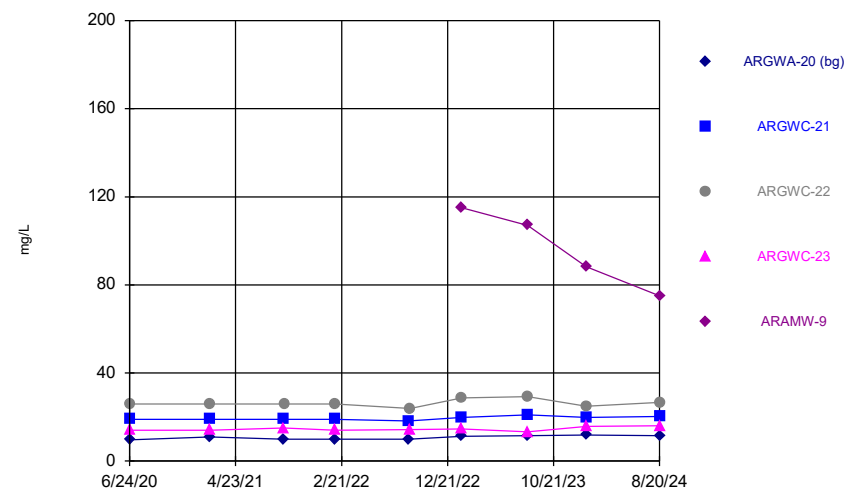
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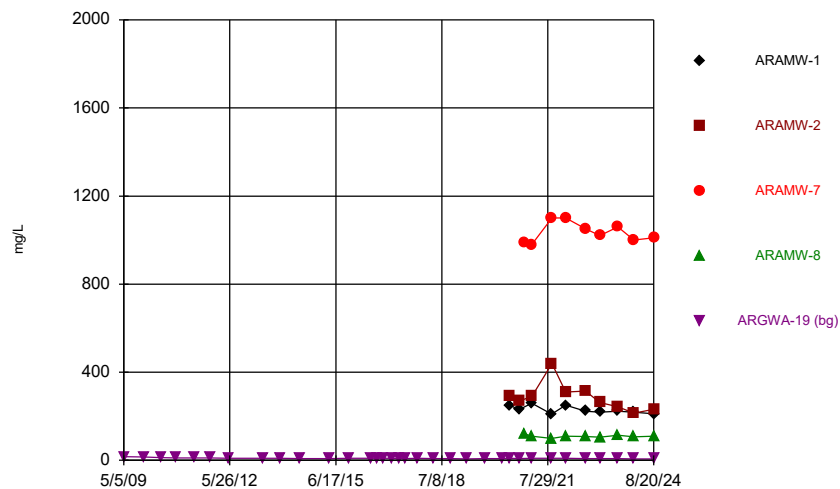
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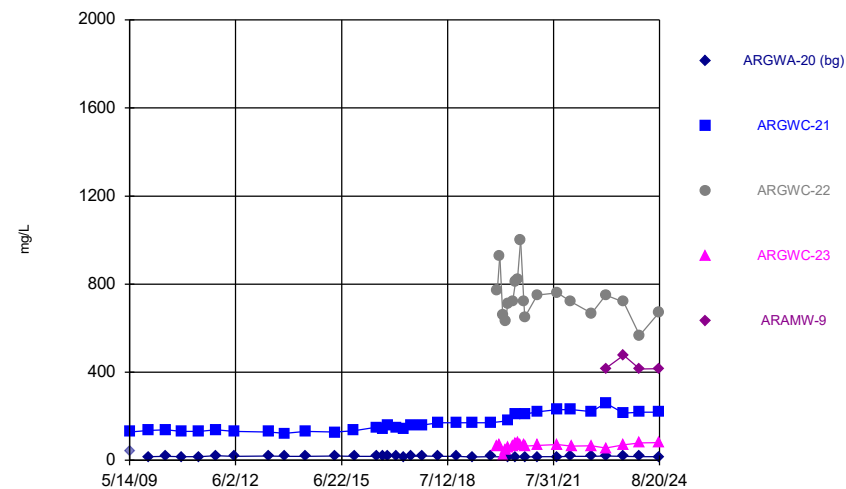
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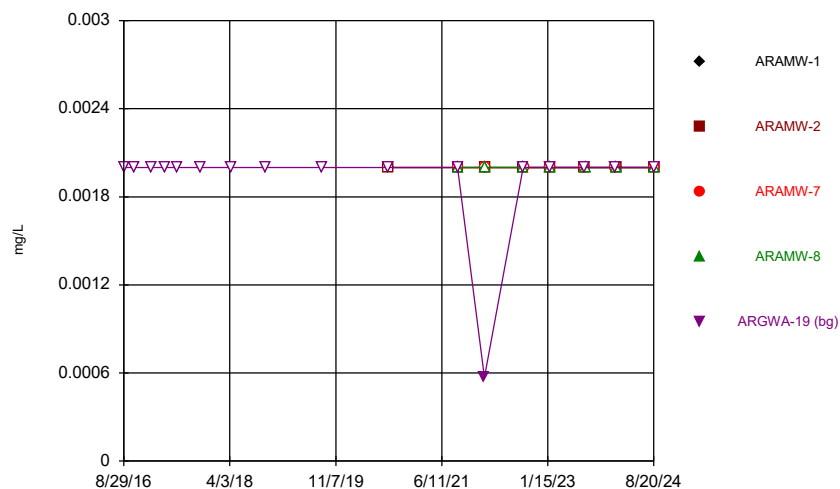
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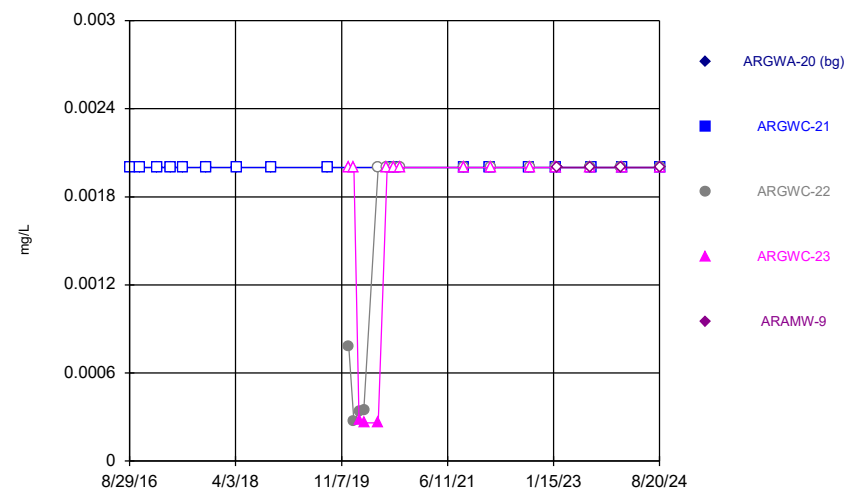
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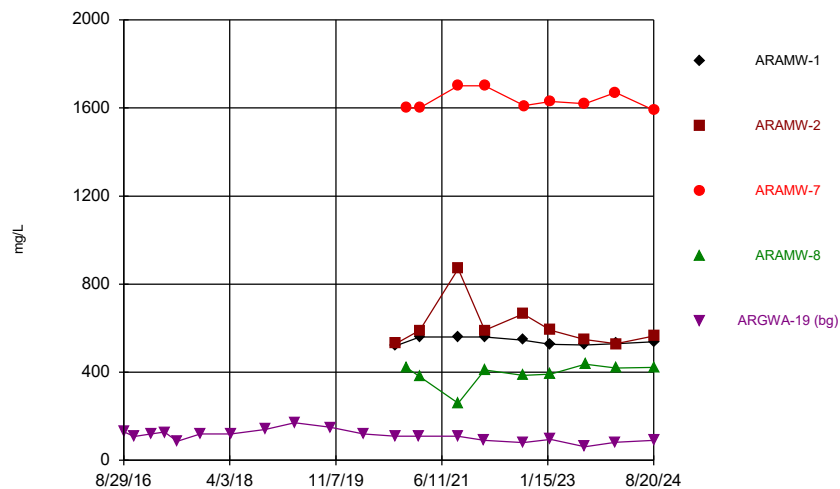
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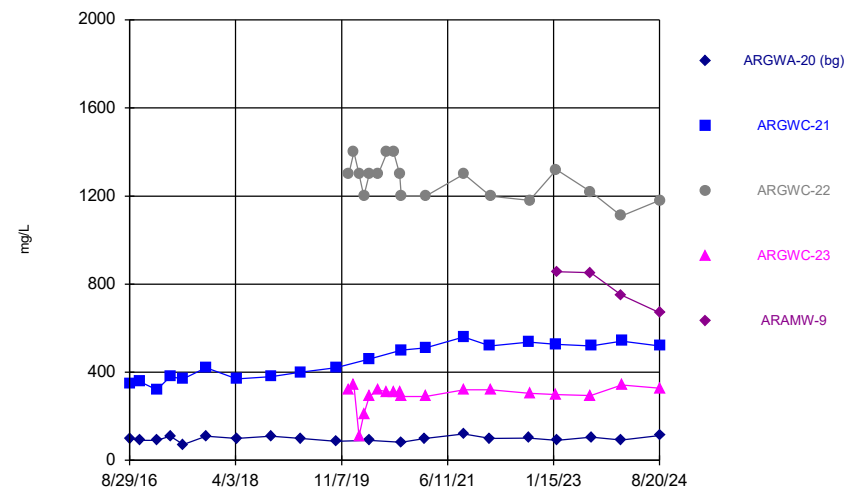


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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



Constituent: Total Dissolved Solids Analysis Run 9/26/2024 12:29 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series

Constituent: Antimony (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					<0.003
10/24/2016					<0.003
1/25/2017					<0.003
4/10/2017					<0.003
6/19/2017					<0.003
10/24/2017					<0.003
4/10/2018					<0.003
10/16/2018					<0.003
8/20/2019					<0.003
8/19/2020					<0.003
8/20/2020	<0.003	<0.003			
9/7/2021					<0.003
9/9/2021	<0.003			<0.003	
9/10/2021		<0.003	<0.003		
2/1/2022					<0.003
2/2/2022			<0.003		
2/3/2022	<0.003	<0.003		<0.003	
9/1/2022					<0.003
9/2/2022	<0.003	<0.003		<0.003	
9/7/2022			<0.003		
1/31/2023	<0.003	<0.003	<0.003	<0.003	<0.003
8/8/2023	<0.003	<0.003	<0.003		<0.003
8/9/2023				0.00134 (J)	
1/23/2024			<0.003		<0.003
1/24/2024	<0.003	<0.003		<0.003	
8/20/2024	<0.003	<0.003	<0.003	<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.003				
8/30/2016		<0.003			
10/24/2016	<0.003				
10/26/2016		<0.003			
1/25/2017	<0.003	<0.003			
4/10/2017	<0.003	<0.003			
6/19/2017		<0.003			
6/20/2017	<0.003				
10/24/2017	<0.003	<0.003			
4/9/2018	<0.003				
4/10/2018		<0.003			
10/16/2018	<0.003	<0.003			
8/20/2019	<0.003	<0.003			
12/16/2019			<0.003	<0.003	
1/14/2020			<0.003	<0.003	
2/11/2020			<0.003	<0.003	
3/9/2020			<0.003	<0.003	
5/27/2020			<0.003	<0.003	
7/15/2020			<0.003	<0.003	
8/19/2020	<0.003		<0.003		
8/20/2020				<0.003	
8/21/2020		<0.003			
9/22/2020			<0.003	<0.003	
9/8/2021	<0.003	<0.003			
9/9/2021				<0.003	
9/10/2021			<0.003		
2/1/2022	<0.003	<0.003			
2/2/2022			<0.003		
2/3/2022				<0.003	
9/1/2022		<0.003			
9/2/2022	<0.003				
9/6/2022			<0.003	<0.003	
1/31/2023		<0.003	<0.003	<0.003	
2/1/2023	<0.003				<0.003
8/8/2023			<0.003	<0.003	0.00158 (J)
8/9/2023		<0.003			
8/10/2023	<0.003				
1/23/2024	<0.003		<0.003		0.00107 (J)
1/24/2024		<0.003		<0.003	
8/20/2024	<0.003	<0.003	<0.003	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					<0.005
12/5/2009					<0.005
6/1/2010					<0.005
11/11/2010					<0.005
5/17/2011					<0.005
11/8/2011					<0.005
5/16/2012					<0.005
5/14/2013					<0.005
11/5/2013					<0.005
6/9/2014					<0.005
11/19/2014					<0.005
4/14/2015					<0.005
11/4/2015					<0.005
6/22/2016					<0.005
8/29/2016					<0.005
10/24/2016					<0.005
1/25/2017					<0.005
4/10/2017					<0.005
6/19/2017					<0.005
10/24/2017					<0.005
4/10/2018					<0.005
10/16/2018					<0.005
3/26/2019					<0.005
8/20/2019					0.00036 (J)
10/7/2019					<0.005
4/7/2020					0.0006 (J)
8/19/2020					<0.005
8/20/2020	<0.005	0.084			
9/29/2020					<0.005
9/30/2020	<0.005				
10/1/2020		0.0085			
2/9/2021					<0.005
2/10/2021	<0.005				
2/11/2021		0.015	0.00075 (J)	0.00046 (J)	
9/7/2021					<0.005
9/9/2021	<0.005			<0.005	
9/10/2021		0.044	<0.005		
2/1/2022					<0.005
2/2/2022			0.00035 (J)		
2/3/2022	<0.005	0.0092		0.00031 (J)	
9/1/2022					<0.005
9/2/2022	0.00233 (J)	0.0158		0.00206 (J)	
9/7/2022			<0.005		
1/31/2023	<0.005	0.00363 (J)	0.00286 (J)	<0.005	<0.005
8/8/2023	<0.005	0.012	<0.005		<0.005
8/9/2023				<0.005	
1/23/2024			0.00219 (J)		<0.005
1/24/2024	<0.005	0.0047 (J)		<0.005	
8/20/2024	<0.005	0.00392 (J)	<0.005	<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		0.0022			
5/15/2009	0.0015				
12/5/2009	<0.005	<0.005			
6/1/2010	<0.005				
6/2/2010		<0.005			
11/11/2010	<0.005	<0.005			
5/17/2011	<0.005	<0.005			
11/8/2011	<0.005	<0.005			
5/16/2012	<0.005	0.002 (J)			
5/14/2013	<0.005	<0.005			
11/5/2013	<0.005	<0.005			
6/9/2014	<0.005	<0.005			
11/18/2014	<0.005	<0.005			
4/14/2015	<0.005	<0.005			
10/29/2015		<0.005			
11/4/2015	<0.005				
6/22/2016	0.00084 (J)				
6/23/2016		0.0011 (J)			
8/29/2016	0.00049 (J)				
8/30/2016		0.002			
10/24/2016	<0.005				
10/26/2016		0.0019 (J)			
1/25/2017	<0.005	0.0017			
4/10/2017	0.00056 (J)	0.002			
6/19/2017		0.0026			
6/20/2017	0.00068 (J)				
10/24/2017	<0.005	0.0021			
4/9/2018	<0.005				
4/10/2018		0.0022			
10/16/2018	<0.005	0.0021			
3/27/2019	<0.005	0.0011 (J)			
8/20/2019	0.00047 (J)	0.002			
10/7/2019	<0.005				
10/8/2019		0.0012 (J)			
12/16/2019			0.00066 (J)	0.00075 (J)	
1/14/2020			0.00038 (J)	0.00042 (J)	
2/11/2020			0.0004 (J)	<0.005	
3/9/2020			<0.005	<0.005	
4/6/2020	0.00042 (J)				
4/7/2020		0.00054 (J)	<0.005	<0.005	
5/27/2020			<0.005	<0.005	
7/15/2020			<0.005	<0.005	
8/19/2020	<0.005		<0.005		
8/20/2020				<0.005	
8/21/2020		<0.005			
9/22/2020			<0.005	<0.005	
9/30/2020	<0.005		<0.005		
10/1/2020		<0.005		<0.005	
2/9/2021	<0.005				
2/10/2021		<0.005	<0.005	<0.005	
9/8/2021	<0.005	<0.005			
9/9/2021				<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
9/10/2021			<0.005		
2/1/2022	<0.005	<0.005			
2/2/2022			<0.005		
2/3/2022				0.0003 (J)	
9/1/2022		0.00207 (J)			
9/2/2022	<0.005				
9/6/2022			<0.005	<0.005	
1/31/2023		<0.005	0.00221 (J)	<0.005	
2/1/2023	<0.005				<0.005
8/8/2023			<0.005	<0.005	<0.005
8/9/2023		<0.005			
8/10/2023	<0.005				
1/23/2024	<0.005		<0.005		<0.005
1/24/2024		<0.005		<0.005	
8/20/2024	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					0.057
12/5/2009					0.05
6/1/2010					0.037
11/11/2010					0.039
5/17/2011					0.037
11/8/2011					0.045
5/16/2012					0.0518
5/14/2013					0.067
11/5/2013					0.066
6/9/2014					0.062
11/19/2014					0.054
4/14/2015					0.046
11/4/2015					0.046
6/22/2016					0.039
8/29/2016					0.04
10/24/2016					0.0444
1/25/2017					0.045
4/10/2017					0.039
6/19/2017					0.041
10/24/2017					0.041
4/10/2018					0.044
10/16/2018					0.047
3/26/2019					0.056
8/20/2019					0.052
10/7/2019					0.049
4/7/2020					0.047
8/19/2020					0.044
8/20/2020	0.055	0.14			
9/29/2020					0.04
9/30/2020	0.052				
10/1/2020		0.075			
2/9/2021					0.032
2/10/2021	0.046				
2/11/2021		0.09	0.037	0.092	
9/7/2021					0.03
9/9/2021	0.051			0.094	
9/10/2021		0.13	0.029		
2/1/2022					0.031
2/2/2022			0.029		
2/3/2022	0.046	0.078		0.096	
9/1/2022					0.0303
9/2/2022	0.0445	0.0792		0.116	
9/7/2022			0.0263		
1/31/2023	0.0427	0.067	0.0243	0.11	0.031
8/8/2023	0.051	0.0753	0.0244		0.0337
8/9/2023				0.122	
1/23/2024			0.0277		0.0348
1/24/2024	0.043	0.0562		0.103	
8/20/2024	0.0389	0.056	0.0277	0.112	0.0293

Time Series

Constituent: Barium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		0.034			
5/15/2009	0.1				
12/5/2009	0.079	0.037			
6/1/2010	0.077				
6/2/2010		0.037			
11/11/2010	0.072	0.036			
5/17/2011	0.064	0.032			
11/8/2011	0.07	0.042			
5/16/2012	0.0741	0.0451			
5/14/2013	0.074	0.043			
11/5/2013	0.075	0.051			
6/9/2014	0.08	0.045			
11/18/2014	0.078	0.052			
4/14/2015	0.073	0.047			
10/29/2015		0.053			
11/4/2015	0.077				
6/22/2016	0.078				
6/23/2016		0.13			
8/29/2016	0.07				
8/30/2016		0.11			
10/24/2016	0.0738				
10/26/2016		0.122			
1/25/2017	0.084	0.12			
4/10/2017	0.073	0.11			
6/19/2017		0.13			
6/20/2017	0.078				
10/24/2017	0.081	0.12			
4/9/2018	0.081				
4/10/2018		0.12			
10/16/2018	0.08	0.1			
3/27/2019	0.082	0.091			
8/20/2019	0.079	0.1			
10/7/2019	0.076				
10/8/2019		0.096			
12/16/2019			0.076	0.096	
1/14/2020			0.071	0.075	
2/11/2020			0.046	0.046	
3/9/2020			0.039	0.14	
4/6/2020	0.075				
4/7/2020		0.05	0.04	0.16	
5/27/2020			0.054	0.18	
7/15/2020			0.043	0.16	
8/19/2020	0.085		0.046		
8/20/2020				0.16	
8/21/2020		0.054			
9/22/2020			0.038	0.16	
9/30/2020	0.08		0.033		
10/1/2020		0.051		0.17	
2/9/2021	0.078				
2/10/2021		0.044	0.032	0.13	
9/8/2021	0.085	0.045			
9/9/2021				0.12	

Time Series

Constituent: Barium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
9/10/2021			0.026		
2/1/2022	0.079	0.045			
2/2/2022			0.025		
2/3/2022				0.1	
9/1/2022		0.0425			
9/2/2022	0.0806				
9/6/2022			0.0226	0.0939	
1/31/2023		0.0414	0.0237	0.0872	
2/1/2023	0.0919				0.0158
8/8/2023			0.0255	0.0936	0.0207
8/9/2023		0.0474			
8/10/2023	0.107				
1/23/2024	0.0978		0.0227		0.0128
1/24/2024		0.0427		0.0922	
8/20/2024	0.0863	0.0431	0.0223	0.105	0.0105

Time Series

Constituent: Beryllium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					<0.0005
10/24/2016					<0.0005
1/25/2017					<0.0005
4/10/2017					<0.0005
6/19/2017					<0.0005
10/24/2017					<0.0005
4/10/2018					<0.0005
10/16/2018					<0.0005
8/20/2019					<0.0005
8/19/2020					<0.0005
8/20/2020	<0.0005	<0.0005			
9/29/2020					<0.0005
9/30/2020	<0.0005				
10/1/2020		<0.0005			
2/9/2021					<0.0005
2/10/2021	<0.0005				
2/11/2021		<0.0005	<0.0025	<0.0005	
9/7/2021					<0.0005
9/9/2021	<0.0005			<0.0005	
9/10/2021		<0.0005	<0.0025		
2/1/2022					<0.0005
2/2/2022			<0.0025		
2/3/2022	<0.0005	<0.0005		<0.0005	
9/1/2022					<0.0005
9/2/2022	<0.0005	<0.0005		<0.0005	
9/7/2022			0.000236 (J)		
1/31/2023	<0.0005	<0.0005	0.000296 (J)	<0.0005	<0.0005
8/8/2023	<0.0005	<0.0005	0.000272 (J)		<0.0005
8/9/2023				<0.0005	
1/23/2024			0.000378 (J)		<0.0005
1/24/2024	<0.0005	<0.0005		<0.0005	
8/20/2024	<0.0005	<0.0005	0.000318 (J)	<0.0005	<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.0005				
8/30/2016		<0.0005			
10/24/2016	<0.0005				
10/26/2016		<0.0005			
1/25/2017	<0.0005	<0.0005			
4/10/2017	<0.0005	<0.0005			
6/19/2017		<0.0005			
6/20/2017	<0.0005				
10/24/2017	<0.0005	<0.0005			
4/9/2018	<0.0005				
4/10/2018		<0.0005			
10/16/2018	<0.0005	<0.0005			
8/20/2019	<0.0005	<0.0005			
12/16/2019			0.0005 (J)	0.00033 (J)	
1/14/2020			0.00036 (J)	<0.0005	
2/11/2020			0.00023	<0.0005	
3/9/2020			0.00019	<0.0005	
5/27/2020			0.00018 (J)	<0.0005	
7/15/2020			<0.0005	<0.0005	
8/19/2020	0.00022 (J)		<0.0005		
8/20/2020				<0.0005	
8/21/2020		<0.0005			
9/22/2020			<0.0005	<0.0005	
9/30/2020	0.00019 (J)		<0.0005		
10/1/2020		<0.0005		<0.0005	
2/9/2021	<0.0005				
2/10/2021		<0.0005	<0.0005	<0.0005	
9/8/2021	<0.0005	<0.0005			
9/9/2021				<0.0005	
9/10/2021			<0.0005		
2/1/2022	<0.0005	<0.0005			
2/2/2022			<0.0005		
2/3/2022				<0.0005	
9/1/2022		<0.0005			
9/2/2022	<0.0005				
9/6/2022			<0.0005	<0.0005	
1/31/2023		<0.0005	<0.0005	<0.0005	
2/1/2023	<0.0005				<0.0005
8/8/2023			<0.0005	<0.0005	<0.0005
8/9/2023		<0.0005			
8/10/2023	0.000275 (J)				
1/23/2024	<0.0005		<0.0005		<0.0005
1/24/2024		<0.0005		<0.0005	
8/20/2024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Boron (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					0.024 (J)
10/24/2016					0.0339 (J)
1/25/2017					0.048 (J)
4/10/2017					0.022 (J)
6/19/2017					<0.08
10/24/2017					0.021 (J)
4/10/2018					0.022 (J)
10/16/2018					<0.08
3/26/2019					<0.08
10/7/2019					<0.08
1/14/2020	1.1	1.8			
4/7/2020					0.072 (J)
6/24/2020	0.84	0.89			
6/25/2020					0.091
9/29/2020					<0.08
9/30/2020	0.98				
10/1/2020		0.95			
11/30/2020			2.1		
12/1/2020				0.4	
2/9/2021					<0.08
2/10/2021	0.94				
2/11/2021		0.98	2.4	0.53	
9/7/2021					<0.08
9/9/2021	1			0.53	
9/10/2021		0.85	2.6		
2/1/2022					0.092
2/2/2022			2.3		
2/3/2022	1.1	1		0.6	
9/1/2022					0.0238
9/2/2022	1.18	1.08		0.558	
9/7/2022			2.33		
1/31/2023	1.2	1.16	2.56	0.637	0.0234
8/8/2023	1.13	1.07	2.25		0.0199
8/9/2023				0.77	
1/23/2024			4.12		0.0214
1/24/2024	1.37	1.16		0.666	
8/20/2024	1.49	1.28	2.44	0.675	0.0236

Time Series

Constituent: Boron (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.08				
8/30/2016		0.57			
10/24/2016	0.0194 (J)				
10/26/2016		0.502			
1/25/2017	0.026 (J)	0.56			
4/10/2017	<0.08	0.54			
6/19/2017		0.54			
6/20/2017	0.032 (J)				
10/24/2017	0.054	0.57			
4/9/2018	0.06				
4/10/2018		0.61			
10/16/2018	0.036 (J)	0.59			
3/27/2019	0.046 (J)	0.65			
10/7/2019	<0.08				
10/8/2019		0.58			
12/16/2019			2.7	0.42	
1/14/2020			2.7	0.43	
2/11/2020			3	0.079 (J)	
3/9/2020			2.7	0.25	
4/6/2020	0.063 (J)				
4/7/2020		0.74	2.6	0.44	
5/27/2020			2.5	0.45	
6/24/2020			2.5		
6/25/2020	0.081	0.82		0.42	
7/15/2020			2.6	0.49	
8/19/2020			1.3		
8/20/2020				0.44	
9/22/2020			2.8	0.5	
9/30/2020	0.083		2.9		
10/1/2020		0.9		0.49	
2/9/2021	0.059 (J)				
2/10/2021		0.81	2.5	0.42	
9/8/2021	0.064 (J)	0.79			
9/9/2021				0.41	
9/10/2021			2.7		
2/1/2022	<0.08	0.85			
2/2/2022			2.4		
2/3/2022				0.49	
9/1/2022		0.921			
9/2/2022	0.0597				
9/6/2022			2.78	0.458	
1/31/2023		1.06	2.77	0.459	
2/1/2023	0.0816				0.055
8/8/2023			3.06	0.379	0.0666
8/9/2023		1.12			
8/10/2023	0.0714				
1/23/2024	0.0685		4.52		0.0549
1/24/2024		1.13		0.456	
8/20/2024	0.0537	1.13	3.09	0.434	0.049

Time Series

Constituent: Cadmium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					<0.001
12/5/2009					<0.001
6/1/2010					<0.001
11/11/2010					<0.001
5/17/2011					<0.001
11/8/2011					<0.001
5/16/2012					<0.001
5/14/2013					<0.001
11/5/2013					<0.001
6/9/2014					<0.001
11/19/2014					<0.001
4/14/2015					<0.001
11/4/2015					<0.001
6/22/2016					<0.001
8/29/2016					<0.001
10/24/2016					<0.001
1/25/2017					<0.001
4/10/2017					<0.001
6/19/2017					<0.001
10/24/2017					<0.001
4/10/2018					<0.001
10/16/2018					<0.001
3/26/2019					<0.001
8/20/2019					<0.001
10/7/2019					<0.001
4/7/2020					0.00034 (J)
8/19/2020					<0.001
8/20/2020	<0.001	<0.001			
2/9/2021					<0.001
2/10/2021	<0.001				
2/11/2021		<0.001	<0.001	<0.001	
9/7/2021					<0.001
9/9/2021	<0.001			<0.001	
9/10/2021		<0.001	<0.001		
2/1/2022					<0.001
2/2/2022			<0.001		
2/3/2022	<0.001	<0.001		<0.001	
9/1/2022					<0.001
9/2/2022	<0.001	<0.001		<0.001	
9/7/2022			<0.001		
1/31/2023	<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2023	<0.001	<0.001	<0.001		<0.001
8/9/2023				<0.001	
1/23/2024			<0.001		<0.001
1/24/2024	<0.001	<0.001		<0.001	
8/20/2024	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		<0.001			
5/15/2009	<0.001				
12/5/2009		<0.001			
6/1/2010	<0.001				
6/2/2010		<0.001			
11/11/2010	<0.001	<0.001			
5/17/2011	<0.001	<0.001			
11/8/2011	<0.001	<0.001			
5/16/2012	<0.001	<0.001			
5/14/2013	<0.001	<0.001			
11/5/2013	<0.001	<0.001			
6/9/2014	<0.001	<0.001			
11/18/2014	<0.001	<0.001			
4/14/2015	<0.001	<0.001			
10/29/2015		<0.001			
11/4/2015	<0.001				
6/22/2016	<0.001				
6/23/2016		<0.001			
8/29/2016	<0.001				
8/30/2016		<0.001			
10/24/2016	<0.001				
10/26/2016		<0.001			
1/25/2017	<0.001	<0.001			
4/10/2017	<0.001	<0.001			
6/19/2017		<0.001			
6/20/2017	<0.001				
10/24/2017	<0.001	<0.001			
4/9/2018	<0.001				
4/10/2018		<0.001			
10/16/2018	<0.001	<0.001			
3/27/2019	<0.001	<0.001			
8/20/2019	<0.001	<0.001			
10/7/2019	<0.001				
10/8/2019		<0.001			
12/16/2019			<0.001	<0.001	
1/14/2020			<0.001	<0.001	
2/11/2020			<0.001	<0.001	
3/9/2020			<0.001	<0.001	
4/6/2020	<0.001				
4/7/2020		<0.001	<0.001	<0.001	
5/27/2020			<0.001	<0.001	
7/15/2020			<0.001	<0.001	
8/19/2020	<0.001		<0.001		
8/20/2020				<0.001	
8/21/2020		<0.001			
9/22/2020			<0.001	<0.001	
2/9/2021	<0.001				
2/10/2021		<0.001	<0.001	<0.001	
9/8/2021	<0.001	<0.001			
9/9/2021				<0.001	
9/10/2021			<0.001		
2/1/2022	<0.001	<0.001			

Time Series

Constituent: Cadmium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
2/2/2022			<0.001		
2/3/2022				<0.001	
9/1/2022		<0.001			
9/2/2022	<0.001				
9/6/2022			<0.001	<0.001	
1/31/2023		<0.001	<0.001	<0.001	
2/1/2023	<0.001				<0.001
8/8/2023			<0.001	<0.001	<0.001
8/9/2023		<0.001			
8/10/2023	<0.001				
1/23/2024	<0.001		<0.001		<0.001
1/24/2024		<0.001		<0.001	
8/20/2024	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Calcium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					11
10/24/2016					11.5
1/25/2017					13
4/10/2017					11
6/19/2017					12
10/24/2017					12
4/10/2018					12
10/16/2018					14
3/26/2019					15
10/7/2019					14
4/7/2020					14
6/24/2020	81	89			
6/25/2020					14
9/29/2020					12
9/30/2020	100				
10/1/2020		91			
11/30/2020			260		
12/1/2020				81	
2/9/2021					9.7
2/10/2021	93				
2/11/2021		100	290	75	
9/7/2021					9.2
9/9/2021	93			71	
9/10/2021		130	290		
2/1/2022					8
2/2/2022			300		
2/3/2022	93	99		71	
9/1/2022					8.52
9/2/2022	80.5	89.2		61.4	
9/7/2022			264		
1/31/2023	87.7	92.5	299	69.8	8.5
8/8/2023	83.4	87.1	279		8.51
8/9/2023				78.6	
1/23/2024			357		9.34
1/24/2024	86.9	83.7		75.8	
8/20/2024	85.4	85.2	284	79.2	8.29

Time Series

Constituent: Calcium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	8.3				
8/30/2016		46			
10/24/2016	7.66				
10/26/2016		44.3			
1/25/2017	9.4	50			
4/10/2017	8.6	52			
6/19/2017		55			
6/20/2017	9.4				
10/24/2017	9.9	56			
4/9/2018	9.9				
4/10/2018		51			
10/16/2018	9.8	57			
3/27/2019	9.2	58			
10/7/2019	8.9				
10/8/2019		60			
12/16/2019			200	69	
1/14/2020			210	65	
2/11/2020			180	10	
3/9/2020			180	46	
4/6/2020	9.5				
4/7/2020		69	190	65	
5/27/2020			200	69	
6/24/2020			180		
6/25/2020	9.6	80		72	
7/15/2020			190	68	
8/19/2020			220		
8/20/2020				69	
9/22/2020			190	66	
9/30/2020	9.9		200		
10/1/2020		79		73	
2/9/2021	9.2				
2/10/2021		76	200	67	
9/8/2021	11	81			
9/9/2021				70	
9/10/2021			200		
2/1/2022	8.3	75			
2/2/2022			190		
2/3/2022				71	
9/1/2022		71.5			
9/2/2022	9.48				
9/6/2022			162	65.2	
1/31/2023		79.1	207	69.9	
2/1/2023	10.8				145
8/8/2023			196	66.6	146
8/9/2023		82.9			
8/10/2023	11				
1/23/2024	11.4		183		167
1/24/2024		82.6		75.6	
8/20/2024	10.6	78	194	79.6	160

Time Series

Constituent: Chloride (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					11.1
12/5/2009					9.46
6/1/2010					6.32
11/11/2010					7.16
5/17/2011					6.84
11/8/2011					9.13
5/16/2012					10.8
5/14/2013					16.2
11/5/2013					14.8
6/9/2014					13.6
4/14/2015					10.4
11/4/2015					9.19
6/22/2016					8.4
8/29/2016					8.4
10/24/2016					9.6
1/25/2017					8.7
4/10/2017					8
6/19/2017					7.6
10/24/2017					7.2
4/10/2018					7.2
10/16/2018					10
3/26/2019					12
10/7/2019					11
4/7/2020					11
6/24/2020	5.3	4.3			
6/25/2020					11
9/29/2020					10
9/30/2020	5.2				
10/1/2020		4.2			
11/30/2020			6.3		
12/1/2020				12	
2/9/2021					8.6
2/10/2021	5.3				
2/11/2021		4.4	5.9	12	
9/7/2021					7.4
9/9/2021	4.5			7.4	
9/10/2021		4.2	6.5		
2/1/2022					6.8
2/2/2022			5.7		
2/3/2022	5.3	4.1		8.1	
9/1/2022					6.27
9/2/2022	3.5	3.54		5.31	
9/7/2022			5.78		
1/31/2023	4.36	3.4	5.82	5.3	6.04
8/8/2023	3.61	3.35	5.5		6.37
8/9/2023				5.13	
1/23/2024			5.11		5.63
1/24/2024	3.43	3.31		4.96	
8/20/2024	3.27	3.24	5.13	4.54	4.89

Time Series

Constituent: Chloride (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		6.38			
5/15/2009	6.86				
12/5/2009	5.06	6.28			
6/1/2010	5.47				
6/2/2010		6.1			
11/11/2010	5.26	6.1461			
5/17/2011	4.8	6.17			
11/8/2011	5.62	6.6			
5/16/2012	5.1	6.18			
5/14/2013	5.25	6.32			
11/5/2013	5.19	5.65			
6/9/2014	5.55	6.08			
4/14/2015	5.39	5.43			
10/29/2015		5.62			
11/4/2015	5.38				
6/22/2016	5.7				
6/23/2016		5.9			
8/29/2016	5.3				
8/30/2016		5.5			
10/24/2016	5.4				
10/26/2016		6			
1/25/2017	5.1	5.4			
4/10/2017	4.9	5.1			
6/19/2017		5.2			
6/20/2017	5				
10/24/2017	4.6	4.9			
4/9/2018	4.7				
4/10/2018		4.8			
10/16/2018	5.3	5.1			
3/27/2019	4.6	4.4			
10/7/2019	5.2				
10/8/2019		4.5			
12/16/2019			5.8	3.9	
1/14/2020			5.5	4	
2/11/2020			9	4.7	
3/9/2020			11	3.7	
4/6/2020	5.2				
4/7/2020		4.2	8.1	3.8	
5/27/2020			7.3	4	
6/24/2020			5.7		
6/25/2020	5.1	3.7		3.4	
7/15/2020			6	3.9	
8/19/2020			5.7		
8/20/2020				3.9	
9/22/2020			7.1	3.6	
9/30/2020	5.6		8		
10/1/2020		4.3		3.8	
2/9/2021	6				
2/10/2021		4.3	7.4	4.6	
9/8/2021	5.9	4			
9/9/2021				4.7	
9/10/2021			6.7		

Time Series

Constituent: Chloride (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
2/1/2022	5.7	3.4			
2/2/2022			6.3		
2/3/2022				4.4	
9/1/2022		3.34			
9/2/2022	5.44				
9/6/2022			8.34	3.73	
1/31/2023		3.3	5.88	3.84	
2/1/2023	6				37.2
8/8/2023			6.79	3.6	36.1
8/9/2023		3.35			
8/10/2023	6.5				
1/23/2024	6.68		7.31		32.9
1/24/2024		3.35		3.74	
8/20/2024	7.63	3.18	7.25	3.68	35.2

Time Series

Constituent: Chromium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					0.0011 (J)
10/24/2016					0.001 (J)
1/25/2017					0.0013 (J)
4/10/2017					<0.01
6/19/2017					0.0013 (J)
10/24/2017					0.0012 (J)
4/10/2018					0.0015 (J)
10/16/2018					0.0014 (J)
8/20/2019					0.0024
10/7/2019					<0.01
4/7/2020					<0.01
8/19/2020					<0.01
8/20/2020	<0.01	<0.01			
9/29/2020					<0.01
9/30/2020	<0.01				
10/1/2020		<0.01			
2/9/2021					0.0015 (J)
2/10/2021	<0.01				
2/11/2021		<0.01	<0.01	<0.01	
9/7/2021					<0.01
9/9/2021	<0.01			<0.01	
9/10/2021		<0.01	<0.01		
2/1/2022					0.0029
2/2/2022			<0.01		
2/3/2022	<0.01	<0.01		<0.01	
9/1/2022					<0.01
9/2/2022	<0.01	<0.01		<0.01	
9/7/2022			<0.01		
1/31/2023	<0.01	<0.01	<0.01	<0.01	<0.01
8/8/2023	<0.01	<0.01	<0.01		<0.01
8/9/2023				<0.01	
1/23/2024			<0.01		<0.01
1/24/2024	<0.01	<0.01		<0.01	
8/20/2024	<0.01	<0.01	<0.01	<0.01	<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	0.0052				
8/30/2016		<0.01			
10/24/2016	0.0053 (J)				
10/26/2016		<0.01			
1/25/2017	0.0056	<0.01			
4/10/2017	0.0047	<0.01			
6/19/2017		<0.01			
6/20/2017	0.0051				
10/24/2017	0.0056	<0.01			
4/9/2018	0.0071				
4/10/2018		<0.01			
10/16/2018	0.0071	<0.01			
8/20/2019	0.0078	0.0017 (J)			
10/7/2019	0.0059				
10/8/2019		<0.01			
12/16/2019			<0.01	<0.01	
1/14/2020			<0.01	<0.01	
2/11/2020			0.0048	<0.01	
3/9/2020			<0.01	<0.01	
4/6/2020	0.0057				
4/7/2020		<0.01	<0.01	<0.01	
5/27/2020			<0.01	<0.01	
7/15/2020			<0.01	<0.01	
8/19/2020	0.0063		<0.01		
8/20/2020				<0.01	
8/21/2020		<0.01			
9/22/2020			<0.01	<0.01	
9/30/2020	0.0057		<0.01		
10/1/2020		<0.01		<0.01	
2/9/2021	0.0059				
2/10/2021		<0.01	<0.01	<0.01	
9/8/2021	0.0059	<0.01			
9/9/2021				<0.01	
9/10/2021			<0.01		
2/1/2022	0.0054	<0.01			
2/2/2022			<0.01		
2/3/2022				<0.01	
9/1/2022		<0.01			
9/2/2022	0.00578 (J)				
9/6/2022			<0.01	<0.01	
1/31/2023		<0.01	<0.01	<0.01	
2/1/2023	0.00682 (J)				<0.01
8/8/2023			<0.01	<0.01	<0.01
8/9/2023		<0.01			
8/10/2023	0.00684 (J)				
1/23/2024	0.00682 (J)		<0.01		<0.01
1/24/2024		<0.01		<0.01	
8/20/2024	0.00598 (J)	<0.01	<0.01	<0.01	<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					<0.001
10/24/2016					<0.001
1/25/2017					<0.001
4/10/2017					<0.001
6/19/2017					<0.001
10/24/2017					<0.001
4/10/2018					<0.001
10/16/2018					<0.001
8/20/2019					0.00011 (J)
10/7/2019					0.00011 (J)
4/7/2020					0.00038 (J)
6/24/2020	0.00097 (J)	0.0027			
6/25/2020					<0.001
8/19/2020					<0.001
8/20/2020	0.001 (J)	0.0022 (J)			
9/29/2020					<0.001
9/30/2020	0.001 (J)				
10/1/2020		0.0036			
11/30/2020			0.028		
12/1/2020				0.0054	
2/9/2021					0.00016 (J)
2/10/2021	0.00082 (J)				
2/11/2021		0.0028	0.017	0.0061	
9/7/2021					<0.001
9/9/2021	0.00072 (J)			0.0046	
9/10/2021		0.0022 (J)	0.075		
2/1/2022					<0.001
2/2/2022			0.077		
2/3/2022	0.00045 (J)	0.0028		0.0028	
9/1/2022					<0.001
9/2/2022	0.000449 (J)	0.002		0.00292	
9/7/2022			0.0737		
1/31/2023	0.000399 (J)	0.00282	0.0687	0.00321	<0.001
8/8/2023	0.00035 (J)	0.00223	0.0605		<0.001
8/9/2023				0.00364	
1/23/2024			0.0597		<0.001
1/24/2024	0.000331 (J)	0.00249		0.00203	
8/20/2024	<0.001	0.00166	0.0702	0.00277	<0.001

Time Series

Constituent: Cobalt (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.001				
8/30/2016		0.0018 (J)			
10/24/2016	<0.001				
10/26/2016		0.0018 (J)			
1/25/2017	0.00076 (J)	0.0017 (J)			
4/10/2017	<0.001	0.0016 (J)			
6/19/2017		0.0021 (J)			
6/20/2017	<0.001				
10/24/2017	<0.001	0.0019 (J)			
4/9/2018	<0.001				
4/10/2018		0.0019 (J)			
10/16/2018	<0.001	0.0019 (J)			
8/20/2019	0.00015 (J)	0.0023			
10/7/2019	<0.001				
10/8/2019		0.0018			
12/16/2019			0.018	0.0023	
1/14/2020			0.0072	0.0031	
2/11/2020			0.013	0.00056	
3/9/2020			0.015	0.00061 (J)	
4/6/2020	0.00039 (J)				
4/7/2020		0.00087	0.009	0.0016	
5/27/2020			0.0059	0.0017 (J)	
6/24/2020			0.0047		
6/25/2020	0.00015 (J)	0.00097 (J)		0.0014 (J)	
7/15/2020			0.0027	0.0017 (J)	
8/19/2020	0.00064 (J)		0.0032		
8/20/2020				0.0023 (J)	
8/21/2020		0.00066 (J)			
9/22/2020			0.0085	0.0036	
9/30/2020	0.00031 (J)		0.0055		
10/1/2020		0.00082 (J)		0.0052	
2/9/2021	0.00038 (J)				
2/10/2021		0.00063 (J)	0.0015 (J)	0.00072 (J)	
9/8/2021	0.0005 (J)	0.0007 (J)			
9/9/2021				0.0009 (J)	
9/10/2021			0.0015 (J)		
2/1/2022	<0.001	0.0007 (J)			
2/2/2022			0.001 (J)		
2/3/2022				0.00063 (J)	
9/1/2022		0.00069 (J)			
9/2/2022	<0.001				
9/6/2022			0.00198	0.000588 (J)	
1/31/2023		0.000659 (J)	0.00154	0.000742 (J)	
2/1/2023	0.000458 (J)				<0.001
8/8/2023			0.00184	0.00044 (J)	<0.001
8/9/2023		0.000813 (J)			
8/10/2023	0.000814 (J)				
1/23/2024	<0.001		0.00408		<0.001
1/24/2024		0.00106		<0.001	
8/20/2024	<0.001	0.000769 (J)	0.00279	0.000484 (J)	<0.001

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					0.324 (U)
10/24/2016					1.17 (U)
1/25/2017					0.443 (U)
4/10/2017					0.483
6/19/2017					0.478
10/24/2017					0.764
4/10/2018					0.3 (U)
10/16/2018					0.991
8/20/2019					0.498
10/7/2019					0.476 (U)
4/7/2020					0.651
8/19/2020					0.294 (U)
8/20/2020	0.527	4.13			
9/29/2020					0.372 (U)
9/30/2020	0.249 (U)				
10/1/2020		2.86			
2/9/2021					0.466 (U)
2/10/2021	0.949				
2/11/2021		2.09	5.1	0.285 (U)	
9/7/2021					0.31 (U)
9/9/2021	0.972			0.16 (U)	
9/10/2021		3.4	4.23		
2/1/2022					0.319 (U)
2/2/2022			4.48		
2/3/2022	1.04	2.69		0.51	
9/1/2022					0.913
9/2/2022	3.41	4.18		1.89	
9/7/2022			4.29		
1/31/2023	4.1	4.3	5.21	3.2	2.33
8/8/2023	1.16 (U)	1.86	4.83		1.8
8/9/2023				0.193 (U)	
1/23/2024			4.65		1.73
1/24/2024	9.3	10.3		2.87	
8/20/2024	2.47	2.98	3.47	<2.19 (D)	2.65

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	0.508 (U)				
8/30/2016		0.832			
10/24/2016	1.46				
10/26/2016		1.27			
1/25/2017	0.377 (U)	0.549			
4/10/2017	0.132 (U)	0.556			
6/19/2017		0.976			
6/20/2017	1.17				
10/24/2017	0.704	0.504			
4/9/2018	0.539				
4/10/2018		0.621			
10/16/2018	0.354 (U)	0.796			
8/20/2019	0.53	0.978			
10/7/2019	0.621 (U)				
10/8/2019		0.588			
12/16/2019			0.229 (U)	0.166 (U)	
1/14/2020			0.783	0.869	
2/11/2020			0.229 (U)	0.0291 (U)	
3/9/2020			0.365	0.626	
4/6/2020	0.072 (U)				
4/7/2020		0.433 (U)	0.567	0.296 (U)	
5/27/2020			0.143 (U)	0.192 (U)	
7/15/2020			0.97	0.279 (U)	
8/19/2020	0.94		0.587 (U)		
8/20/2020				0.242 (U)	
8/21/2020		0.472			
9/22/2020			0.884	0.0177 (U)	
9/30/2020	0.679		0.602		
10/1/2020		0.496 (U)		0.749	
2/9/2021	-0.0396 (U)				
2/10/2021		0.625	0.233 (U)	0.0408 (U)	
9/8/2021	0.44 (U)	1.12			
9/9/2021				0.498	
9/10/2021			0.713		
2/1/2022	-0.00713 (U)	0.331 (U)			
2/2/2022			0.195 (U)		
2/3/2022				0.248 (U)	
9/1/2022		1.57			
9/2/2022	0.783				
9/6/2022			2.58	2.36	
1/31/2023		3.25	2.2	0.859 (U)	
2/1/2023	2.18				0.413 (U)
8/8/2023			1.22 (U)	0.363 (U)	3.92
8/9/2023		2.69			
8/10/2023	1.8				
1/23/2024	2.5		2.1		2.96
1/24/2024		5.34		2.73	
8/20/2024	<1.5	<3.22	<1.92	2.1	2.8

Time Series

Constituent: Fluoride (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					<0.1
10/24/2016					0.07 (J)
1/25/2017					<0.1
4/10/2017					<0.1
6/19/2017					<0.1
10/24/2017					<0.1
4/10/2018					<0.1
10/16/2018					0.083 (J)
3/26/2019					0.041 (J)
8/20/2019					0.045 (J)
10/7/2019					0.049 (J)
4/7/2020					0.14
6/24/2020	0.21	0.11			
6/25/2020					0.03 (J)
8/19/2020					<0.1
8/20/2020	0.23	<0.1			
9/29/2020					0.051 (J)
9/30/2020	0.2				
10/1/2020		0.098 (J)			
11/30/2020			0.044 (J)		
12/1/2020				0.14	
2/9/2021					0.059 (J)
2/10/2021	0.21				
2/11/2021		0.12	0.054 (J)	0.24	
9/7/2021					0.1
9/9/2021	0.21			0.19	
9/10/2021		0.13	0.032 (J)		
2/1/2022					0.076 (J)
2/2/2022			<0.1		
2/3/2022	0.16	0.095 (J)		0.17	
9/1/2022					0.148
9/2/2022	0.18	0.146		0.206	
9/7/2022			<0.1		
1/31/2023	0.22 (J)	0.13 (J)	0.11 (J)	0.263 (J)	0.108 (J)
8/8/2023	0.118	0.0571 (J)	<0.1		<0.1
8/9/2023				0.261	
1/23/2024			0.126		0.121
1/24/2024	0.199	0.171		0.222	
8/20/2024	0.169	0.123	0.118 (J)	0.199	0.0679 (J)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.1				
8/30/2016		0.099 (J)			
10/24/2016	0.04 (J)				
10/26/2016		0.57			
1/25/2017	<0.1	0.12 (J)			
4/10/2017	<0.1	0.11 (J)			
6/19/2017		0.11 (J)			
6/20/2017	<0.1				
10/24/2017	<0.1	0.1 (J)			
4/9/2018	<0.1				
4/10/2018		0.094 (J)			
10/16/2018	<0.1	0.17 (J)			
3/27/2019	<0.1	0.05 (J)			
8/20/2019	0.042 (J)	0.098 (J)			
10/7/2019	0.036 (J)				
10/8/2019		0.065 (J)			
12/16/2019			0.026 (J)	0.18 (J)	
1/14/2020			<0.2	0.21	
2/11/2020			0.056	0.13	
3/9/2020			0.064 (J)	0.089 (J)	
4/6/2020	0.059 (J)				
4/7/2020		0.12	0.068 (J)	0.18	
5/27/2020			0.06 (J)	0.25	
6/24/2020			0.048 (J)		
6/25/2020	<0.1	0.041 (J)		0.25	
7/15/2020			0.04 (J)	0.28	
8/19/2020	<0.1		<0.2		
8/20/2020				0.19	
8/21/2020		0.084 (J)			
9/22/2020			0.049 (J)	0.33	
9/30/2020	0.032 (J)		0.045 (J)		
10/1/2020		0.098 (J)		0.32	
2/9/2021	0.048 (J)				
2/10/2021		0.14	0.055 (J)	0.41	
9/8/2021	0.067 (J)	0.16			
9/9/2021				0.48	
9/10/2021			0.035 (J)		
2/1/2022	0.028 (J)	0.11			
2/2/2022			0.04 (J)		
2/3/2022				0.4	
9/1/2022		0.161			
9/2/2022	0.122				
9/6/2022			0.056 (J)	0.362	
1/31/2023		0.175 (J)	0.0979 (J)	0.551 (J)	
2/1/2023	0.121				0.938
8/8/2023			<0.2	0.283	0.837
8/9/2023		0.203			
8/10/2023	<0.1				
1/23/2024	0.113		0.134		0.971
1/24/2024		0.173		0.391	
8/20/2024	0.0488 (J)	0.124	0.066 (J)	0.365	0.889

Time Series

Constituent: Lead (mg/L) Analysis Run 10/1/2024 9:21 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					<0.002
12/5/2009					<0.002
6/1/2010					<0.002
11/11/2010					<0.002
5/17/2011					<0.002
11/8/2011					<0.002
5/16/2012					<0.002
5/14/2013					<0.002
11/5/2013					<0.002
6/9/2014					<0.002
11/19/2014					<0.002
4/14/2015					<0.002
11/4/2015					<0.002
6/22/2016					<0.002
8/29/2016					<0.002
10/24/2016					<0.002
1/25/2017					<0.002
4/10/2017					<0.002
6/19/2017					<0.002
10/24/2017					<0.002
4/10/2018					<0.002
10/16/2018					<0.002
3/26/2019					<0.002
8/20/2019					<0.002
10/7/2019					0.00018 (J)
4/7/2020					0.00037 (J)
8/19/2020					<0.002
8/20/2020	<0.002	<0.002			
9/29/2020					<0.002
9/30/2020	<0.002				
10/1/2020		<0.002			
2/9/2021					<0.002
2/10/2021	<0.002				
2/11/2021		<0.002	0.00013 (J)	<0.002	
9/7/2021					<0.002
9/9/2021	<0.002			<0.002	
9/10/2021		<0.002	<0.002		
2/1/2022					<0.002
2/2/2022			<0.002		
2/3/2022	<0.002	<0.002		<0.002	
9/1/2022					<0.002
9/2/2022	<0.002	<0.002		<0.002	
9/7/2022			<0.002		
1/31/2023	<0.002	<0.002	<0.002	<0.002	<0.002
8/8/2023	<0.002	<0.002	<0.002		<0.002
8/9/2023				<0.002	
1/23/2024			<0.002		<0.002
1/24/2024	<0.002	<0.002		<0.002	
8/20/2024	<0.002	<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Lead (mg/L) Analysis Run 10/1/2024 9:21 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		<0.002			
5/15/2009	<0.002				
12/5/2009		<0.002			
6/1/2010	<0.002				
6/2/2010		<0.002			
11/11/2010	<0.002	<0.002			
5/17/2011	<0.002	<0.002			
11/8/2011	<0.002	<0.002			
5/16/2012	<0.002	<0.002			
5/14/2013	<0.002	<0.002			
11/5/2013	<0.002	<0.002			
6/9/2014	<0.002	<0.002			
11/18/2014	<0.002	<0.002			
4/14/2015	<0.002	<0.002			
10/29/2015		<0.002			
11/4/2015	<0.002				
6/22/2016	<0.002				
6/23/2016		<0.002			
8/29/2016	<0.002				
8/30/2016		<0.002			
10/24/2016	<0.002				
10/26/2016		<0.002			
1/25/2017	0.00037 (J)	<0.002			
4/10/2017	<0.002	<0.002			
6/19/2017		<0.002			
6/20/2017	<0.002				
10/24/2017	<0.002	<0.002			
4/9/2018	<0.002				
4/10/2018		<0.002			
10/16/2018	<0.002	<0.002			
3/27/2019	<0.002	<0.002			
8/20/2019	<0.002	<0.002			
10/7/2019	0.00014 (J)				
10/8/2019		0.00015 (J)			
12/16/2019			<0.002	<0.002	
1/14/2020			0.00022 (J)	0.00018 (J)	
2/11/2020			<0.002	0.00026 (J)	
3/9/2020			<0.002	<0.002	
4/6/2020	0.00033 (J)				
4/7/2020		0.00026 (J)	0.00014 (J)	<0.002	
5/27/2020			<0.002	<0.002	
7/15/2020			<0.002	<0.002	
8/19/2020	0.00039 (J)		<0.002		
8/20/2020				<0.002	
8/21/2020		<0.002			
9/22/2020			<0.002	<0.002	
9/30/2020	0.00022 (J)		<0.002		
10/1/2020		<0.002		<0.002	
2/9/2021	0.00033 (J)				
2/10/2021		<0.002	<0.002	<0.002	
9/8/2021	0.00024 (J)	<0.002			
9/9/2021				<0.002	

Time Series

Constituent: Lead (mg/L) Analysis Run 10/1/2024 9:21 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
9/10/2021			<0.002		
2/1/2022	<0.002	<0.002			
2/2/2022			<0.002		
2/3/2022				<0.002	
9/1/2022		<0.002			
9/2/2022	<0.002				
9/6/2022			<0.002	<0.002	
1/31/2023		<0.002	<0.002	<0.002	
2/1/2023	<0.002				<0.002
8/8/2023			<0.002	<0.002	<0.002
8/9/2023		<0.002			
8/10/2023	<0.002				
1/23/2024	<0.002		<0.002		<0.002
1/24/2024		<0.002		<0.002	
8/20/2024	<0.002	<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/1/2024 9:21 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					0.0048 (J)
10/24/2016					<0.05
1/25/2017					0.0052
4/10/2017					0.0034 (J)
6/19/2017					0.0036 (J)
10/24/2017					0.0051
4/10/2018					0.0057
10/16/2018					0.0048 (J)
8/20/2019					0.0044 (J)
10/7/2019					0.013
1/14/2020	0.009	0.086			
4/7/2020					0.0053
6/24/2020	0.0084	0.018			
6/25/2020					0.0053
8/19/2020					0.0038 (J)
8/20/2020	0.0066	0.036			
9/29/2020					0.0041 (J)
9/30/2020	0.0091				
10/1/2020		0.019			
11/30/2020			0.061		
12/1/2020				0.0044 (J)	
2/9/2021					0.0038 (J)
2/10/2021	0.0097				
2/11/2021		0.021	0.061	0.0055	
9/7/2021					0.0034 (J)
9/9/2021	0.0095			0.0062	
9/10/2021		0.025	0.06		
2/1/2022					0.0039 (J)
2/2/2022			0.06		
2/3/2022	0.0099	0.021		0.0063	
9/1/2022					0.00359 (J)
9/2/2022	0.0097 (J)	0.0232		0.00654 (J)	
9/7/2022			0.0634		
1/31/2023	0.0099 (J)	0.0202	0.068	0.00659 (J)	0.00424 (J)
8/8/2023	0.00909 (J)	0.0193	0.0577		0.00382 (J)
8/9/2023				0.00637 (J)	
1/23/2024			0.0779		0.0044 (J)
1/24/2024	0.0106	0.0172		0.00669 (J)	
8/20/2024	0.00934 (J)	0.0145	0.0585	0.00586 (J)	0.00376 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/1/2024 9:21 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.01				
8/30/2016		0.0092			
10/24/2016	<0.01				
10/26/2016		0.0071 (J)			
1/25/2017	<0.01	0.0087			
4/10/2017	<0.01	0.0074			
6/19/2017		0.0079			
6/20/2017	<0.01				
10/24/2017	<0.01	0.0097			
4/9/2018	0.0021 (J)				
4/10/2018		0.012			
10/16/2018	0.0018 (J)	0.01			
8/20/2019	<0.01	0.0098			
10/7/2019	0.0066				
10/8/2019		0.015			
12/16/2019			0.027	0.02	
1/14/2020			0.034	0.022	
2/11/2020			0.01	0.0078	
3/9/2020			0.0071	0.013	
4/6/2020	<0.01				
4/7/2020		0.011	0.012	0.032	
5/27/2020			0.017	0.037	
6/24/2020			0.023		
6/25/2020	<0.01	0.013		0.043	
7/15/2020			0.021	0.042	
8/19/2020	<0.01		0.026		
8/20/2020				0.036	
8/21/2020		0.013			
9/22/2020			0.014	0.039	
9/30/2020	<0.01		0.014		
10/1/2020		0.012		0.04	
2/9/2021	<0.01				
2/10/2021		0.012	0.022	0.044	
9/8/2021	<0.01	0.012			
9/9/2021				0.045	
9/10/2021			0.021		
2/1/2022	0.0015 (J)	0.012			
2/2/2022			0.02		
2/3/2022				0.052	
9/1/2022		0.0116			
9/2/2022	<0.01				
9/6/2022			0.0136	0.0578	
1/31/2023		0.0124	0.0284	0.0499	
2/1/2023	<0.01				0.00463 (J)
8/8/2023			0.028	0.0517	0.00907 (J)
8/9/2023		0.0131			
8/10/2023	<0.01				
1/23/2024	<0.01		0.0125		0.00862 (J)
1/24/2024		0.0131		0.0547	
8/20/2024	<0.01	0.0119	0.02	0.0469	0.00958 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					<0.0002
10/24/2016					<0.0002
1/25/2017					7.7E-05 (J)
4/10/2017					<0.0002
6/19/2017					<0.0002
10/24/2017					<0.0002
4/10/2018					<0.0002
10/16/2018					<0.0002
8/20/2019					<0.0002
8/19/2020					<0.0002
8/20/2020	<0.0002	<0.0002			
9/7/2021					<0.0002
9/9/2021	<0.0002			<0.0002	
9/10/2021		<0.0002	<0.0002		
2/1/2022					<0.0002
2/2/2022			<0.0002		
2/3/2022	<0.0002	<0.0002		<0.0002	
9/1/2022					<0.0002
9/2/2022	<0.0002	<0.0002		<0.0002	
9/7/2022			<0.0002		
1/31/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/8/2023	<0.0002	<0.0002	<0.0002		<0.0002
8/9/2023				<0.0002	
1/23/2024			<0.0002		<0.0002
1/24/2024	<0.0002	<0.0002		<0.0002	
8/20/2024	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.0002				
8/30/2016		<0.0002			
10/24/2016	<0.0002				
10/26/2016		<0.0002			
1/25/2017	7.2E-05 (J)	7.3E-05 (J)			
4/10/2017	<0.0002	<0.0002			
6/19/2017		<0.0002			
6/20/2017	<0.0002				
10/24/2017	<0.0002	<0.0002			
4/9/2018	<0.0002				
4/10/2018		<0.0002			
10/16/2018	<0.0002	<0.0002			
8/20/2019	<0.0002	<0.0002			
12/16/2019			<0.0002	<0.0002	
1/14/2020			<0.0002	<0.0002	
2/11/2020			<0.0002	<0.0002	
3/9/2020			<0.0002	<0.0002	
5/27/2020			<0.0002	<0.0002	
7/15/2020			<0.0002	<0.0002	
8/19/2020	<0.0002		<0.0002		
8/20/2020				<0.0002	
8/21/2020		<0.0002			
9/22/2020			<0.0002	<0.0002	
10/1/2020				<0.0002	
9/8/2021	<0.0002	<0.0002			
9/9/2021				<0.0002	
9/10/2021			<0.0002		
2/1/2022	<0.0002	<0.0002			
2/2/2022			<0.0002		
2/3/2022				<0.0002	
9/1/2022		<0.0002			
9/2/2022	<0.0002				
9/6/2022			<0.0002	<0.0002	
1/31/2023		<0.0002	<0.0002	<0.0002	
2/1/2023	<0.0002				<0.0002
8/8/2023			<0.0002	<0.0002	<0.0002
8/9/2023		<0.0002			
8/10/2023	<0.0002				
1/23/2024	<0.0002		0.000372		<0.0002
1/24/2024		<0.0002		<0.0002	
8/20/2024	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					<0.015
10/24/2016					<0.015
1/25/2017					<0.015
4/10/2017					<0.015
6/19/2017					<0.015
10/24/2017					<0.015
4/10/2018					0.00096 (J)
10/16/2018					<0.015
8/20/2019					<0.015
6/24/2020	0.0051 (J)	<0.015			
6/25/2020					<0.015
8/19/2020					<0.015
8/20/2020	0.0076 (J)	0.0013 (J)			
9/29/2020					<0.015
9/30/2020	0.0054 (J)				
10/1/2020		<0.015			
11/30/2020			0.0012 (J)		
12/1/2020				0.056	
2/9/2021					<0.015
2/10/2021	0.0043 (J)				
2/11/2021		<0.015	<0.001	0.038	
9/7/2021					<0.015
9/9/2021	0.0059 (J)			0.12	
9/10/2021		<0.015	<0.001		
2/1/2022					0.00067 (J)
2/2/2022			<0.001		
2/3/2022	0.0049 (J)	<0.015		0.16	
9/1/2022					0.000501 (J)
9/2/2022	0.00785	0.000603 (J)		0.175	
9/7/2022			0.000379 (J)		
1/31/2023	0.00974	0.000491 (J)	<0.001	0.188	0.000395 (J)
8/8/2023	0.00667	0.0011	<0.001		0.000421 (J)
8/9/2023				0.203	
1/23/2024			<0.001		0.00048 (J)
1/24/2024	0.00937	0.00101		0.196	
8/20/2024	0.00873	0.000585 (J)	0.000257 (J)	0.195	0.000375 (J)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.001				
8/30/2016		<0.001			
10/24/2016	<0.001				
10/26/2016		<0.001			
1/25/2017	<0.001	<0.001			
4/10/2017	<0.001	<0.001			
6/19/2017		<0.001			
6/20/2017	<0.001				
10/24/2017	<0.001	<0.001			
4/9/2018	<0.001				
4/10/2018		<0.001			
10/16/2018	<0.001	<0.001			
8/20/2019	<0.001	<0.001			
12/16/2019			0.0018 (J)	0.025	
1/14/2020			0.0012 (J)	0.032	
2/11/2020			0.00093	0.021	
3/9/2020			0.00067	0.013 (J)	
5/27/2020			<0.015	0.048	
6/24/2020			<0.015		
6/25/2020	<0.001	<0.001		0.055	
7/15/2020			<0.015	0.055	
8/19/2020	<0.001		<0.015		
8/20/2020				0.061	
8/21/2020		<0.001			
9/22/2020			<0.015	0.053	
9/30/2020	<0.001		<0.015		
10/1/2020		<0.001		0.064	
2/9/2021	<0.001				
2/10/2021		<0.001	<0.015	0.063	
9/8/2021	<0.001	<0.001			
9/9/2021				0.071	
9/10/2021			<0.015		
2/1/2022	<0.001	<0.001			
2/2/2022			<0.015		
2/3/2022				0.065	
9/1/2022		<0.001			
9/2/2022	<0.001				
9/6/2022			0.000203 (J)	0.067	
1/31/2023		<0.001	0.000496 (J)	0.0671	
2/1/2023	<0.001				0.014
8/8/2023			0.000514 (J)	0.0618	0.0109
8/9/2023		<0.001			
8/10/2023	<0.001				
1/23/2024	<0.001		0.00025 (J)		0.00683
1/24/2024		<0.001		0.0651	
8/20/2024	<0.001	<0.001	0.000406 (J)	0.074	0.00237

Time Series

Constituent: pH (SU) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					6.75 (o)
10/24/2016					5.81
1/25/2017					5.91
4/10/2017					5.74
6/19/2017					5.54
10/24/2017					5.82
4/10/2018					5.92
10/16/2018					5.94
3/26/2019					5.85
8/20/2019					5.9
10/7/2019					5.89
1/14/2020	6.07	6.12			
4/7/2020					5.72
6/24/2020	6.31	6.19			
6/25/2020					5.8
8/19/2020					6.25
8/20/2020	6.09	5.99			
9/29/2020					5.83
9/30/2020	6.16				
10/1/2020		5.96			
11/30/2020			6		
12/1/2020				7.05	
2/9/2021					5.97
2/10/2021	6.16				
2/11/2021		6	5.67	6.95	
9/7/2021					5.85
9/9/2021	6.1			6.56	
9/10/2021		6.01	5.7		
2/1/2022					5.52
2/2/2022			5.58		
2/3/2022	6.11	6.01		6.59	
9/1/2022					5.88
9/2/2022	6.04	6		6.44	
9/7/2022			5.57		
1/31/2023	6.36	6.18	5.54	6.44	5.86
8/8/2023	6.38	6.01	5.47		5.81
8/9/2023				8.71	
1/23/2024			5.57		5.93
1/24/2024	6.12	6.1		6.47	
8/20/2024	6.13	6.08	5.62	6.47	5.93

Time Series

Constituent: pH (SU) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	5.64				
8/30/2016		6.38			
10/24/2016	5.6				
10/26/2016		6.23			
1/25/2017	5.65	6.15			
4/10/2017	5.42	5.99			
6/19/2017		5.95			
6/20/2017	5.59				
10/24/2017	5.58	6.02			
4/9/2018	5.78				
4/10/2018		6.12			
10/16/2018	5.69	6.12			
3/27/2019	5.96	6.2			
8/20/2019	5.57	6.08			
10/7/2019	5.65				
10/8/2019		6.11			
12/16/2019			5.74	6.41	
1/14/2020			5.91	6.62	
2/11/2020			5.9	6.71	
3/9/2020			5.97	6.32	
4/6/2020	5.53				
4/7/2020		5.96	5.84	6.4	
5/27/2020			5.69	6.3	
6/24/2020			5.82		
6/25/2020	5.61	5.98		6.37	
7/15/2020			5.58	6.36	
8/19/2020	6.16		6.21		
8/20/2020				6.33	
8/21/2020		5.89			
9/22/2020			5.77	6.29	
9/30/2020	5.65		5.81		
10/1/2020		5.99		6.38	
2/9/2021	5.66				
2/10/2021		6.01	5.68	6.37	
9/8/2021	5.59	5.94			
9/9/2021				6.35	
9/10/2021			5.62		
2/1/2022	5.14	5.65			
2/2/2022			5.7		
2/3/2022				6.44	
9/1/2022		5.97			
9/2/2022	5.68				
9/6/2022			5.88	6.41	
1/31/2023		6.04	5.61	6.46	
2/1/2023	5.7				7.95
8/8/2023			5.61	6.33	8.13
8/9/2023		6.6			
8/10/2023	5.55				
1/23/2024	5.77		5.88		7.92
1/24/2024		6.03		6.43	
8/20/2024	5.83	6.2	5.76	6.34	7.95

Time Series

Constituent: Selenium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					0.0043
12/5/2009					<0.005
6/1/2010					<0.005
11/11/2010					<0.005
5/17/2011					<0.005
11/8/2011					<0.005
5/16/2012					<0.005
5/14/2013					<0.005
11/5/2013					<0.005
6/9/2014					<0.005
11/19/2014					<0.005
4/14/2015					<0.005
11/4/2015					<0.005
6/22/2016					0.00025 (J)
8/29/2016					0.0004 (J)
10/24/2016					<0.005
1/25/2017					<0.005
4/10/2017					<0.005
6/19/2017					0.00025 (J)
10/24/2017					<0.005
4/10/2018					0.00074 (J)
10/16/2018					<0.005
3/26/2019					<0.005
8/20/2019					<0.005
10/7/2019					<0.005
4/7/2020					<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			
2/9/2021					<0.005
2/10/2021	<0.005				
2/11/2021		<0.005	<0.005	<0.005	
9/7/2021					<0.005
9/9/2021	<0.005			<0.005	
9/10/2021		<0.005	<0.005		
2/1/2022					<0.005
2/2/2022			<0.005		
2/3/2022	<0.005	<0.005		<0.005	
9/1/2022					<0.005
9/2/2022	<0.005	<0.005		<0.005	
9/7/2022			<0.005		
1/31/2023	<0.005	<0.005	<0.005	<0.005	<0.005
8/8/2023	<0.005	<0.005	<0.005		<0.005
8/9/2023				<0.005	
1/23/2024			<0.005		<0.005
1/24/2024	<0.005	<0.005		<0.005	
8/20/2024	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		0.0058 (o)			
5/15/2009	0.007 (o)				
12/5/2009	<0.005	<0.005			
6/1/2010	<0.005				
6/2/2010		<0.005			
11/11/2010	<0.005	<0.005			
5/17/2011	<0.005	<0.005			
11/8/2011	<0.005	<0.005			
5/16/2012	0.0024 (J)	<0.005			
5/14/2013	<0.005	<0.005			
11/5/2013	<0.005	<0.005			
6/9/2014	<0.005	<0.005			
11/18/2014	<0.005	<0.005			
4/14/2015	<0.005	<0.005			
10/29/2015		<0.005			
11/4/2015	<0.005				
6/22/2016	0.0019				
6/23/2016		<0.005			
8/29/2016	0.0019				
8/30/2016		<0.005			
10/24/2016	0.0023 (J)				
10/26/2016		<0.005			
1/25/2017	0.0015	<0.005			
4/10/2017	0.0011 (J)	<0.005			
6/19/2017		<0.005			
6/20/2017	0.0016				
10/24/2017	0.0012 (J)	<0.005			
4/9/2018	0.0012 (J)				
4/10/2018		<0.005			
10/16/2018	0.0015	<0.005			
3/27/2019	0.0015	<0.005			
8/20/2019	0.0015 (J)	<0.005			
10/7/2019	0.0016 (J)				
10/8/2019		<0.005			
12/16/2019			<0.005	<0.005	
1/14/2020			<0.005	<0.005	
2/11/2020			<0.005	<0.005	
3/9/2020			<0.005	<0.005	
4/6/2020	0.0017 (J)				
4/7/2020		<0.005	<0.005	<0.005	
5/27/2020			<0.005	<0.005	
7/15/2020			<0.005	<0.005	
8/19/2020	0.0015 (J)		<0.005		
8/20/2020				<0.005	
8/21/2020		<0.005			
9/22/2020			<0.005	<0.005	
9/30/2020	0.0016 (J)		<0.005		
10/1/2020		<0.005		<0.005	
2/9/2021	0.0016 (J)				
2/10/2021		<0.005	<0.005	<0.005	
9/8/2021	<0.005	<0.005			
9/9/2021				<0.005	

Time Series

Constituent: Selenium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
9/10/2021			0.002 (J)		
2/1/2022	0.0015 (J)	<0.005			
2/2/2022			<0.005		
2/3/2022				<0.005	
9/1/2022		<0.005			
9/2/2022	<0.005				
9/6/2022			<0.005	<0.005	
1/31/2023		<0.005	<0.005	<0.005	
2/1/2023	<0.005				<0.005
8/8/2023			<0.005	<0.005	<0.005
8/9/2023		<0.005			
8/10/2023	<0.005				
1/23/2024	<0.005		<0.005		<0.005
1/24/2024		<0.005		<0.005	
8/20/2024	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Silver (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					<0.001
12/5/2009					0.00075
6/1/2010					<0.001
11/11/2010					<0.001
5/17/2011					<0.001
11/8/2011					<0.001
5/16/2012					<0.001
5/14/2013					<0.001
11/5/2013					<0.001
6/9/2014					<0.001
11/19/2014					<0.001
4/14/2015					<0.001
11/4/2015					<0.001
6/22/2016					<0.001
10/24/2016					<0.001
4/10/2017					<0.001
10/24/2017					<0.001
4/10/2018					<0.001
10/16/2018					<0.001
3/26/2019					<0.001
10/7/2019					0.00056 (J)
4/7/2020					0.00018 (J)
9/29/2020					<0.001
9/30/2020	<0.001				
10/1/2020		<0.001			
2/9/2021					<0.001
2/10/2021	<0.001				
2/11/2021		<0.001	<0.001	<0.001	
9/7/2021					<0.001
9/9/2021	<0.001			<0.001	
9/10/2021		<0.001	<0.001		
2/1/2022					<0.001
2/2/2022			<0.001		
2/3/2022	<0.001	<0.001		<0.001	
9/1/2022					<0.001
9/2/2022	<0.001	<0.001		<0.001	
9/7/2022			<0.001		
1/31/2023	<0.001	<0.001	<0.001	<0.001	<0.001
8/8/2023	<0.001	<0.001	<0.001		<0.001
8/9/2023				<0.001	
1/23/2024			<0.001		<0.001
1/24/2024	<0.001	<0.001		<0.001	
8/20/2024	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Silver (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		<0.001			
5/15/2009	<0.001				
12/5/2009	0.00043	0.001			
6/1/2010	<0.001				
6/2/2010		<0.001			
11/11/2010	<0.001	<0.001			
5/17/2011	<0.001	<0.001			
11/8/2011	<0.001	<0.001			
5/16/2012	<0.001	<0.001			
5/14/2013	<0.001	<0.001			
11/5/2013	<0.001	<0.001			
6/9/2014	<0.001	<0.001			
11/18/2014	<0.001	<0.001			
4/14/2015	<0.001	<0.001			
10/29/2015		<0.001			
11/4/2015	<0.001				
6/22/2016	<0.001				
6/23/2016		<0.001			
10/24/2016	<0.001				
10/26/2016		<0.001			
4/10/2017	<0.001	<0.001			
10/24/2017	<0.001	<0.001			
4/9/2018	<0.001				
4/10/2018		<0.001			
10/16/2018	<0.001	<0.001			
3/27/2019	<0.001	<0.001			
10/7/2019	0.00031 (J)				
10/8/2019		0.00043 (J)			
4/6/2020	<0.001				
4/7/2020		<0.001	<0.001	<0.001	
9/30/2020	<0.001		<0.001		
10/1/2020		<0.001		<0.001	
2/9/2021	<0.001				
2/10/2021		<0.001	<0.001	<0.001	
9/8/2021	<0.001	<0.001			
9/9/2021				<0.001	
9/10/2021			<0.001		
2/1/2022	<0.001	<0.001			
2/2/2022			<0.001		
2/3/2022				<0.001	
9/1/2022		<0.001			
9/2/2022	<0.001				
9/6/2022			<0.001	<0.001	
1/31/2023		<0.001	<0.001	<0.001	
2/1/2023	<0.001				<0.001
8/8/2023			<0.001	<0.001	<0.001
8/9/2023		<0.001			
8/10/2023	<0.001				
1/23/2024	<0.001		<0.001		<0.001
1/24/2024		<0.001		<0.001	
8/20/2024	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Sodium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
6/24/2020	21	20			
6/25/2020					13
11/30/2020			27		
12/1/2020				22	
2/9/2021					11
2/10/2021	22				
2/11/2021		20	30	22	
9/7/2021					10
9/9/2021	21			19	
9/10/2021		20	30		
2/1/2022					10
2/2/2022			29		
2/3/2022	21	20		17	
9/1/2022					9.76
9/2/2022	19.5	18.9		15.5	
9/7/2022			28.1		
1/31/2023	21.9	20.5	29.8	17.4	10
8/8/2023	19.3	18.8	26.1		9.51
8/9/2023				18.1	
1/23/2024			33.2		11.1
1/24/2024	21	19.8		17.7	
8/20/2024	20	19	27.6	17.7	9.61

Time Series

Constituent: Sodium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
6/24/2020			26		
6/25/2020	9.7	19		14	
2/9/2021	11				
2/10/2021		19	26	14	
9/8/2021	10	19			
9/9/2021				15	
9/10/2021			26		
2/1/2022	10	19			
2/2/2022			26		
2/3/2022				14	
9/1/2022		18.2			
9/2/2022	10				
9/6/2022			23.9	14.3	
1/31/2023		19.8	28.7	14.6	
2/1/2023	11.3				115
8/8/2023			29.2	13.3	107
8/9/2023		21			
8/10/2023	11.5				
1/23/2024	11.8		24.9		88.3
1/24/2024		19.8		15.7	
8/20/2024	11.5	20.2	26.6	16.1	75

Time Series

Constituent: Sulfate (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
5/5/2009					15.9
12/5/2009					15.1
6/1/2010					12.7
11/11/2010					11.5
5/17/2011					11.2
11/8/2011					11.3
5/16/2012					9.38
5/14/2013					8.74
11/5/2013					9.12
6/9/2014					8.61
4/14/2015					8.45
11/4/2015					9.01
6/22/2016					9.3
8/29/2016					8.7
10/24/2016					9.3
1/25/2017					8.8
4/10/2017					7.8
6/19/2017					8.6
10/24/2017					9.1
4/10/2018					7.9
10/16/2018					8.2
3/26/2019					6.1
10/7/2019					7.4
4/7/2020					8.4
6/24/2020	250	290			
6/25/2020					9.8
9/29/2020					8.4
9/30/2020	230				
10/1/2020		270			
11/30/2020			990		
12/1/2020				120	
2/9/2021					10
2/10/2021	260				
2/11/2021		290	980	110	
9/7/2021					9.9
9/9/2021	210			100	
9/10/2021		440	1100		
2/1/2022					10
2/2/2022			1100		
2/3/2022	250	310		110	
9/1/2022					8.38
9/2/2022	223	315		108	
9/7/2022			1050		
1/31/2023	218	262	1020	105	7.55
8/8/2023	223	243	1060		8.29
8/9/2023				114	
1/23/2024			1000		6.98
1/24/2024	219	214		106	
8/20/2024	211	232	1010	109	7.07

Time Series

Constituent: Sulfate (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
5/14/2009		129			
5/15/2009	41.3 (o)				
12/5/2009	16.2	136			
6/1/2010	18.2				
6/2/2010		138			
11/11/2010	16.5	131.49			
5/17/2011	16	132			
11/8/2011	21	138			
5/16/2012	17.7	132			
5/14/2013	19.5	129			
11/5/2013	18.3	122			
6/9/2014	18.6	131			
4/14/2015	18.8	128			
10/29/2015		134			
11/4/2015	17.4				
6/22/2016	18				
6/23/2016		150			
8/29/2016	18				
8/30/2016		140			
10/24/2016	18				
10/26/2016		160			
1/25/2017	19	150			
4/10/2017	16	140			
6/19/2017		160			
6/20/2017	18				
10/24/2017	19	160			
4/9/2018	18				
4/10/2018		170			
10/16/2018	18	170			
3/27/2019	15	170			
10/7/2019	17				
10/8/2019		170			
12/16/2019			770	66	
1/14/2020			930	68	
2/11/2020			660	18	
3/9/2020			630	49	
4/6/2020	15				
4/7/2020		180	710	58	
5/27/2020			720	65	
6/24/2020			810		
6/25/2020	16	210		77	
7/15/2020			820	78	
8/19/2020			1000		
8/20/2020				69	
9/22/2020			720	68	
9/30/2020	15		650		
10/1/2020		210		64	
2/9/2021	16				
2/10/2021		220	750	67	
9/8/2021	16	230			
9/9/2021				72	
9/10/2021			760		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
2/1/2022	18	230			
2/2/2022			720		
2/3/2022				64	
9/1/2022		221			
9/2/2022	18.5				
9/6/2022			667	65.3	
1/31/2023		260	751	55.5	
2/1/2023	19.3				417
8/8/2023			719	69.8	477
8/9/2023		214			
8/10/2023	18.5				
1/23/2024	17.1		567		415
1/24/2024		219		78.4	
8/20/2024	16.4	219	674	80.1	416

Time Series

Constituent: Thallium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					<0.002
10/24/2016					<0.002
1/25/2017					<0.002
4/10/2017					<0.002
6/19/2017					<0.002
10/24/2017					<0.002
4/10/2018					<0.002
10/16/2018					<0.002
8/20/2019					<0.002
8/19/2020					<0.002
8/20/2020	<0.002	<0.002			
9/7/2021					<0.002
9/9/2021	<0.002			<0.002	
9/10/2021		<0.002	<0.002		
2/1/2022					0.00057 (J)
2/2/2022			<0.002		
2/3/2022	<0.002	<0.002		<0.002	
9/1/2022					<0.002
9/2/2022	<0.002	<0.002		<0.002	
9/7/2022			<0.002		
1/31/2023	<0.002	<0.002	<0.002	<0.002	<0.002
8/8/2023	<0.002	<0.002	<0.002		<0.002
8/9/2023				<0.002	
1/23/2024			<0.002		<0.002
1/24/2024	<0.002	<0.002		<0.002	
8/20/2024	<0.002	<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Thallium (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	<0.002				
8/30/2016		<0.002			
10/24/2016	<0.002				
10/26/2016		<0.002			
1/25/2017	<0.002	<0.002			
4/10/2017	<0.002	<0.002			
6/19/2017		<0.002			
6/20/2017	<0.002				
10/24/2017	<0.002	<0.002			
4/9/2018	<0.002				
4/10/2018		<0.002			
10/16/2018	<0.002	<0.002			
8/20/2019	<0.002	<0.002			
12/16/2019			0.00078 (J)	<0.002	
1/14/2020			0.00027 (J)	<0.002	
2/11/2020			0.00034	0.00028 (J)	
3/9/2020			0.00035 (J)	0.00026 (J)	
5/27/2020			<0.002	0.00026 (J)	
7/15/2020			<0.002	<0.002	
8/19/2020	<0.002		<0.002		
8/20/2020				<0.002	
8/21/2020		<0.002			
9/22/2020			<0.002	<0.002	
9/8/2021	<0.002	<0.002			
9/9/2021				<0.002	
9/10/2021			<0.002		
2/1/2022	<0.002	<0.002			
2/2/2022			<0.002		
2/3/2022				<0.002	
9/1/2022		<0.002			
9/2/2022	<0.002				
9/6/2022			<0.002	<0.002	
1/31/2023		<0.002	<0.002	<0.002	
2/1/2023	<0.002				<0.002
8/8/2023			<0.002	<0.002	<0.002
8/9/2023		<0.002			
8/10/2023	<0.002				
1/23/2024	<0.002		<0.002		<0.002
1/24/2024		<0.002		<0.002	
8/20/2024	<0.002	<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: T Total Dissolved Solids (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWA-19 (bg)
8/29/2016					130
10/24/2016					108
1/25/2017					120
4/10/2017					128 (D)
6/19/2017					86
10/24/2017					120
4/10/2018					120
10/16/2018					140
3/26/2019					170
10/7/2019					150
4/7/2020					120
9/29/2020					110
9/30/2020	520				
10/1/2020		530			
11/30/2020			1600		
12/1/2020				420	
2/9/2021					110
2/10/2021	560				
2/11/2021		590	1600	380	
9/7/2021					110
9/9/2021	560			260	
9/10/2021		870	1700		
2/1/2022					91
2/2/2022			1700		
2/3/2022	560	590		410	
9/1/2022					81
9/2/2022	546	664		385	
9/7/2022			1610		
1/31/2023	527	591	1630	392	95
8/8/2023	524	548	1620		62
8/9/2023				436	
1/23/2024			1670		82
1/24/2024	530	529		419	
8/20/2024	538	564	1590	422	91

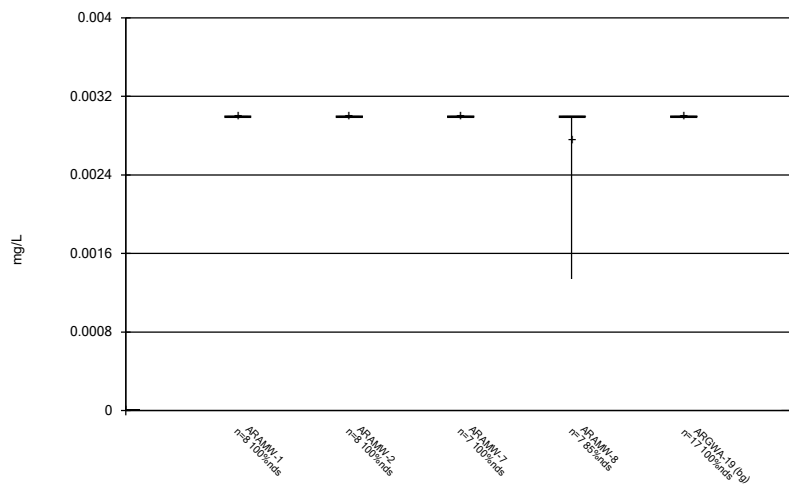
Time Series

Constituent: T Total Dissolved Solids (mg/L) Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/29/2016	100				
8/30/2016		350			
10/24/2016	91				
10/26/2016		357			
1/25/2017	90	320			
4/10/2017	110	380			
6/19/2017		370			
6/20/2017	72				
10/24/2017	110	420			
4/9/2018	100				
4/10/2018		370			
10/16/2018	110	380			
3/27/2019	100	400			
10/7/2019	87				
10/8/2019		420			
12/16/2019			1300	320	
1/14/2020			1400	340	
2/11/2020			1300	110	
3/9/2020			1200	210	
4/6/2020	90				
4/7/2020		460	1300	290	
5/27/2020			1300	320	
7/15/2020			1400	310	
8/19/2020			1400		
8/20/2020				310	
9/22/2020			1300	310	
9/30/2020	82		1200		
10/1/2020		500		290	
2/9/2021	100				
2/10/2021		510	1200	290	
9/8/2021	120	560			
9/9/2021				320	
9/10/2021			1300		
2/1/2022	100	520			
2/2/2022			1200		
2/3/2022				320	
9/1/2022		537			
9/2/2022	101				
9/6/2022			1180	305	
1/31/2023		526	1320	299	
2/1/2023	90				857
8/8/2023			1220	294	852
8/9/2023		520			
8/10/2023	105				
1/23/2024	92		1110		750
1/24/2024		541		342	
8/20/2024	113	520	1180	328	670

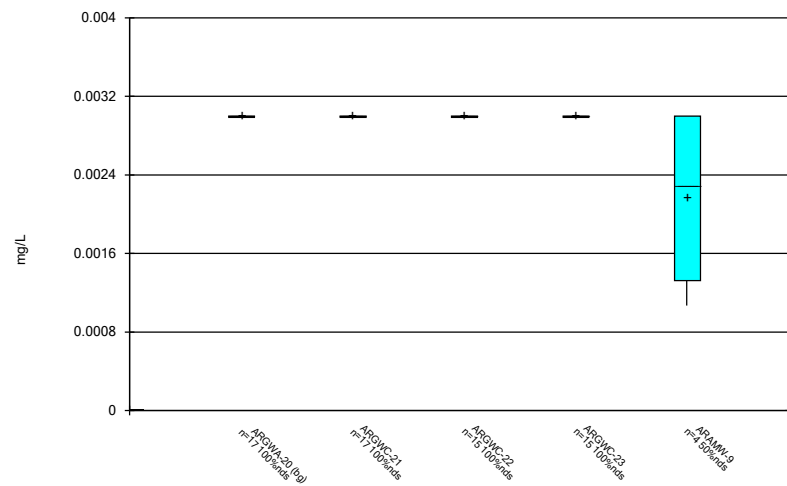
FIGURE B.

Box & Whiskers Plot



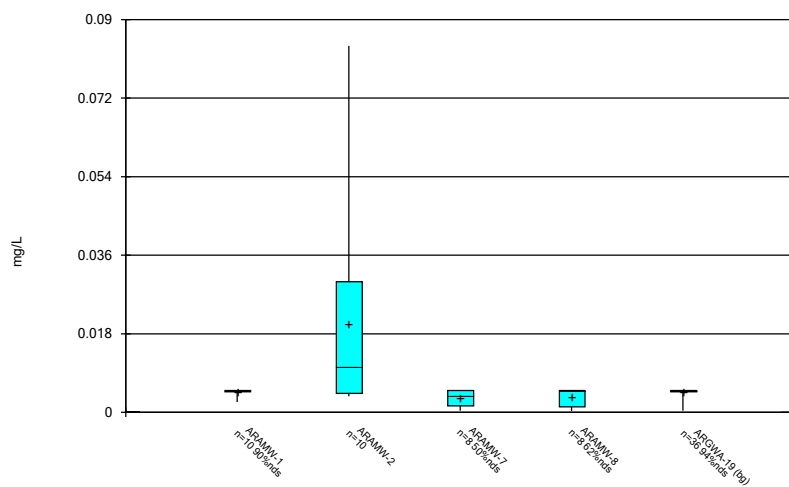
Constituent: Antimony Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



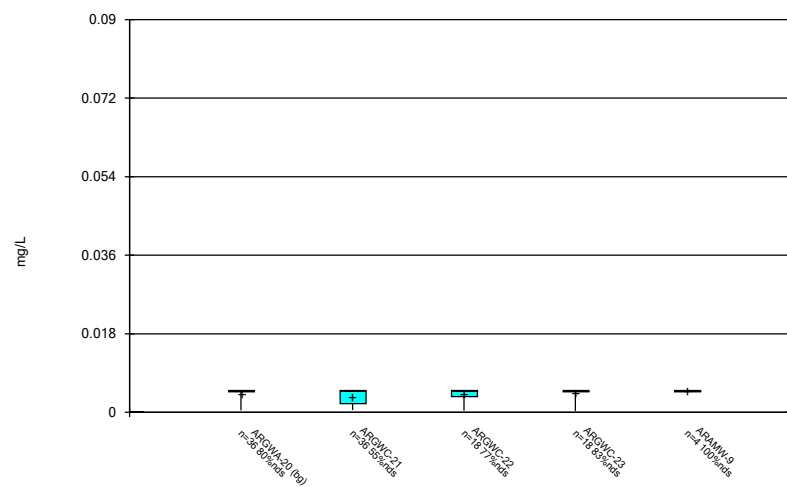
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



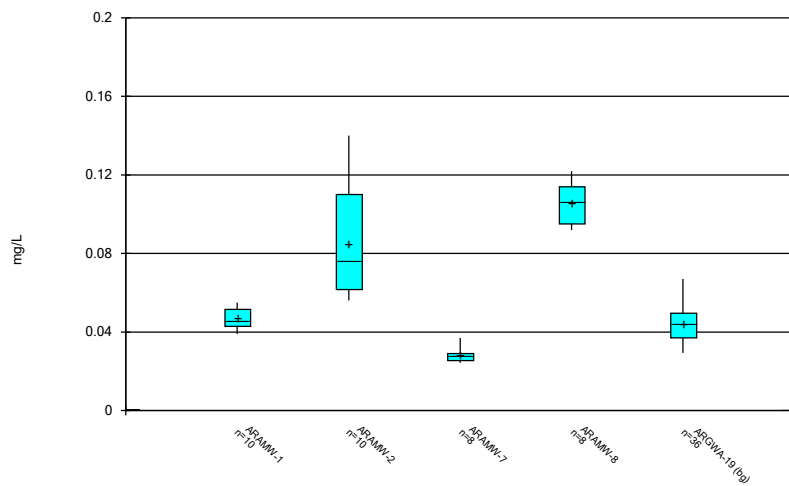
Constituent: Arsenic Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



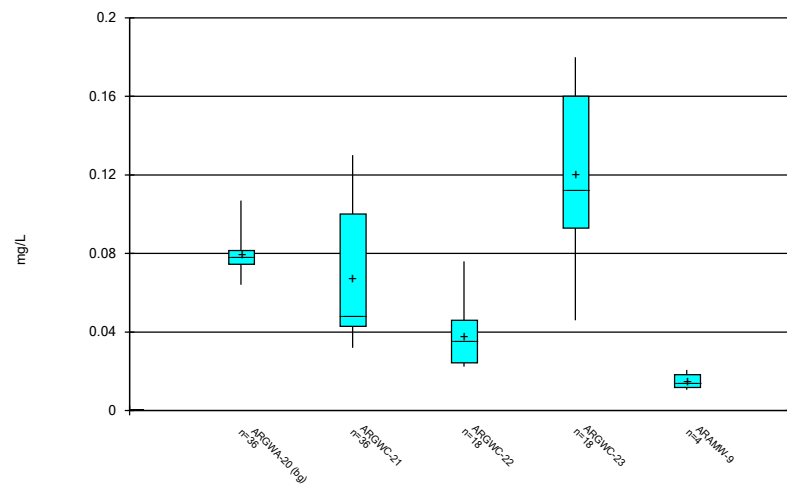
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



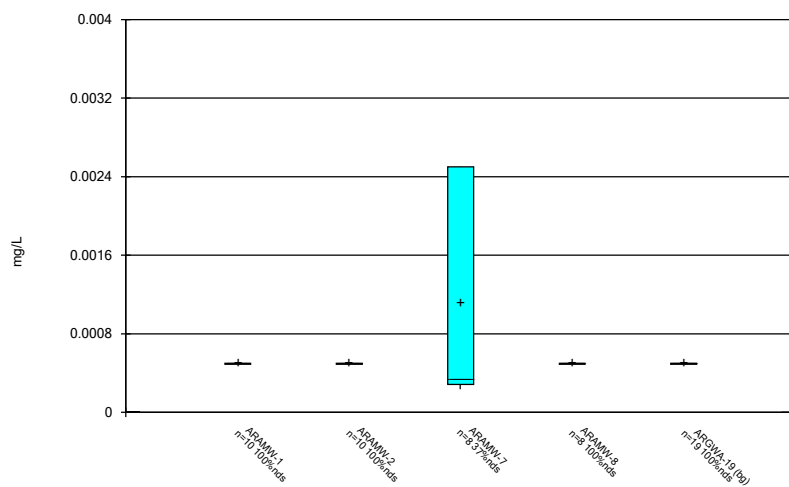
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



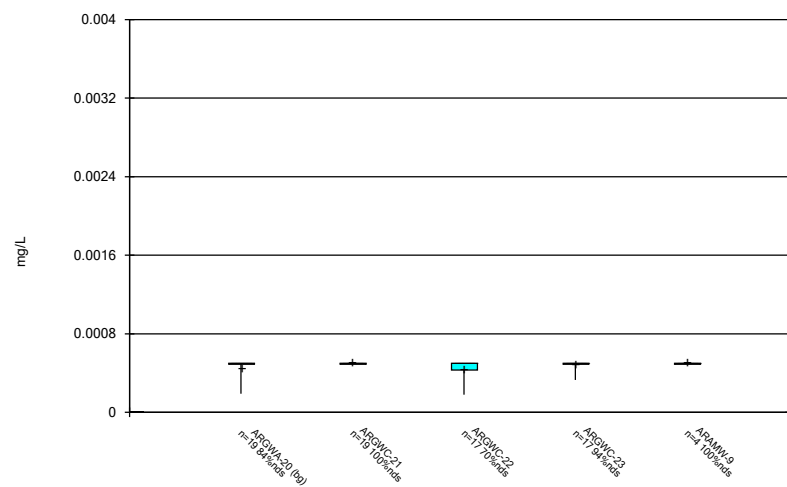
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



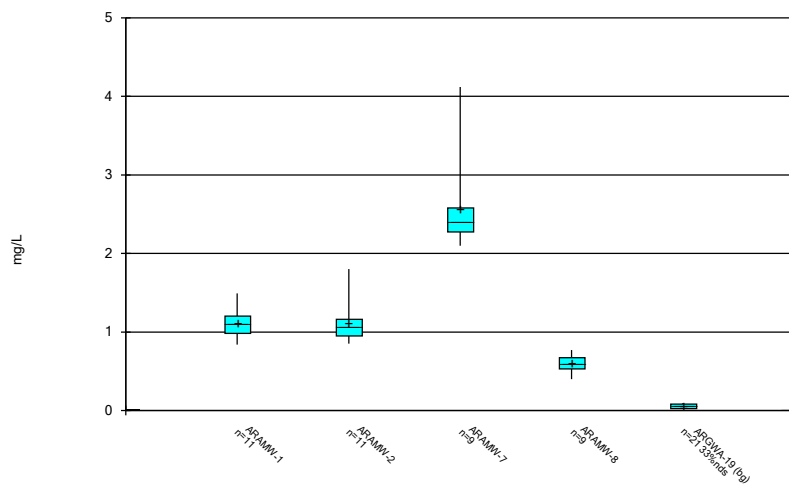
Constituent: Beryllium Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



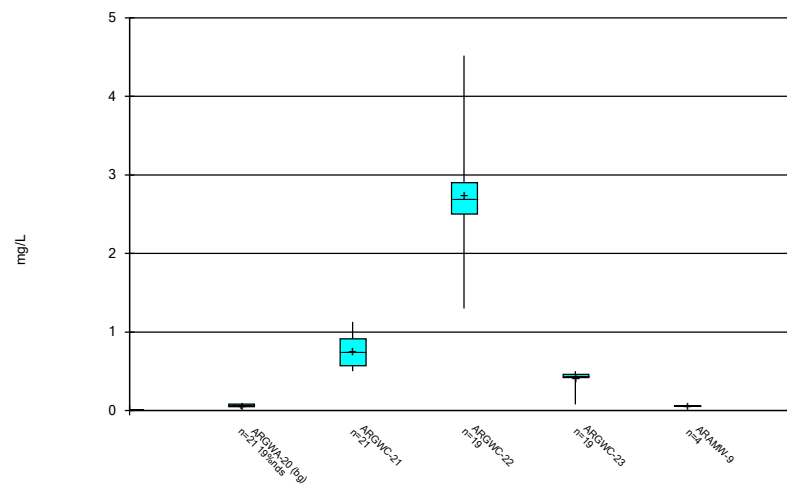
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



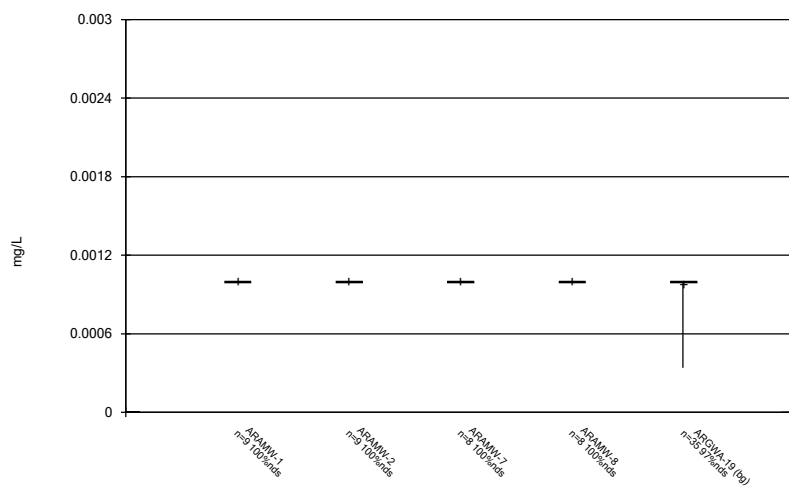
Constituent: Boron Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



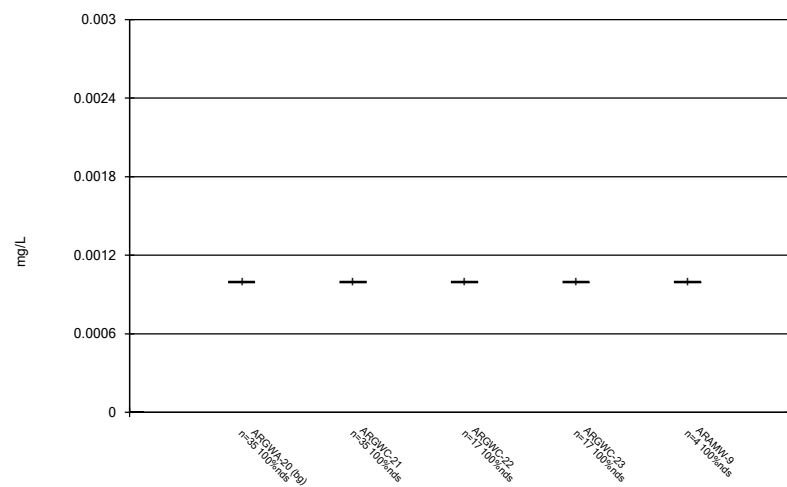
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



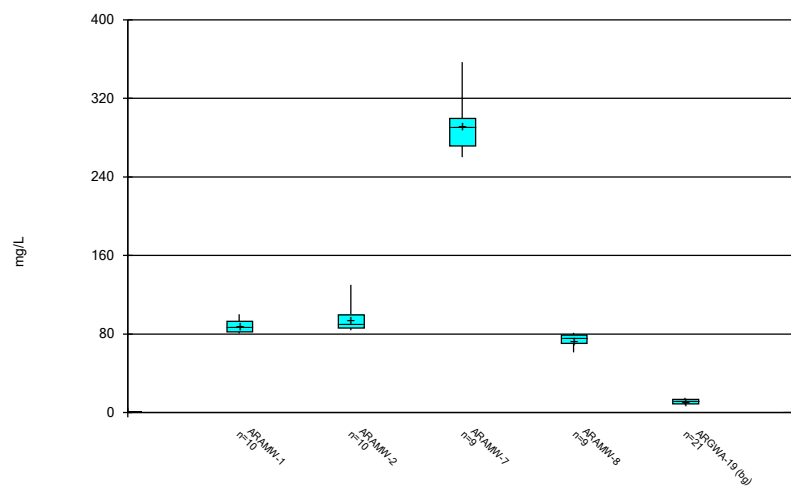
Constituent: Cadmium Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



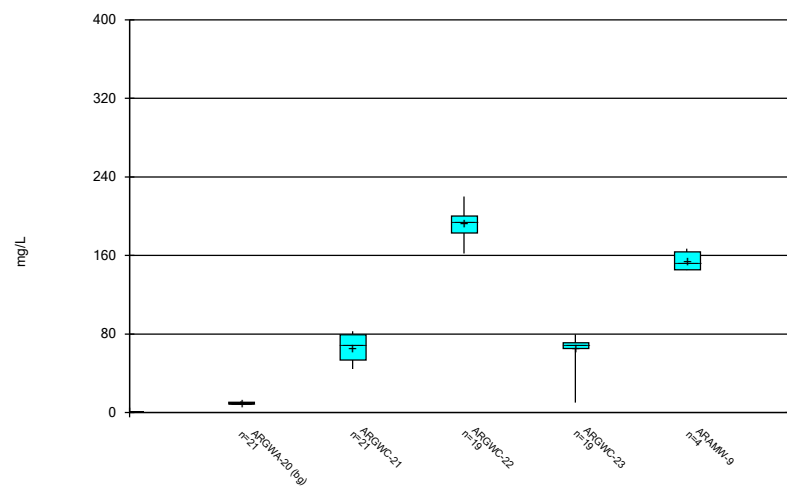
Constituent: Cadmium Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



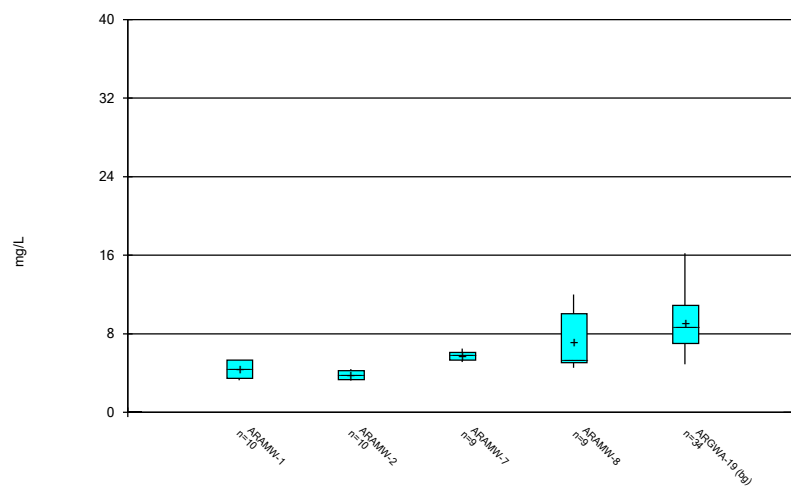
Constituent: Calcium Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



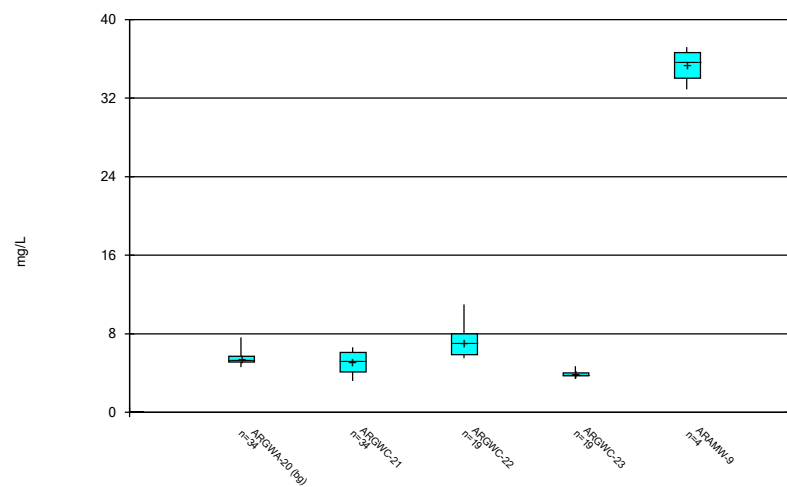
Constituent: Calcium Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



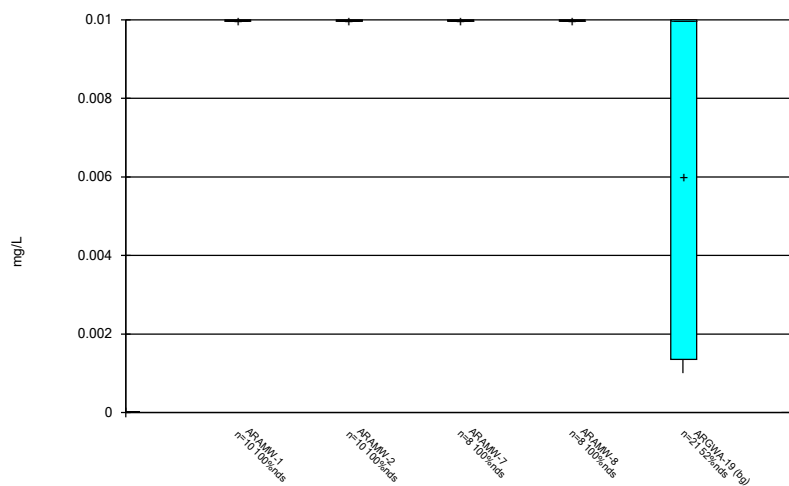
Constituent: Chloride Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



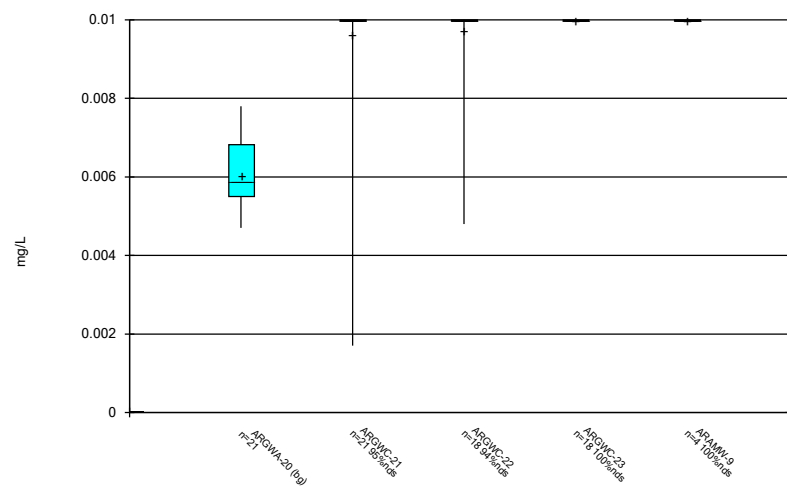
Constituent: Chloride Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



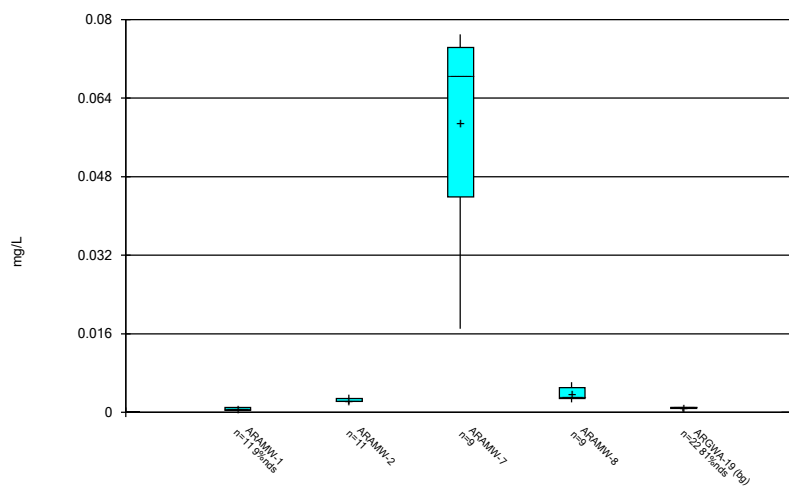
Constituent: Chromium Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



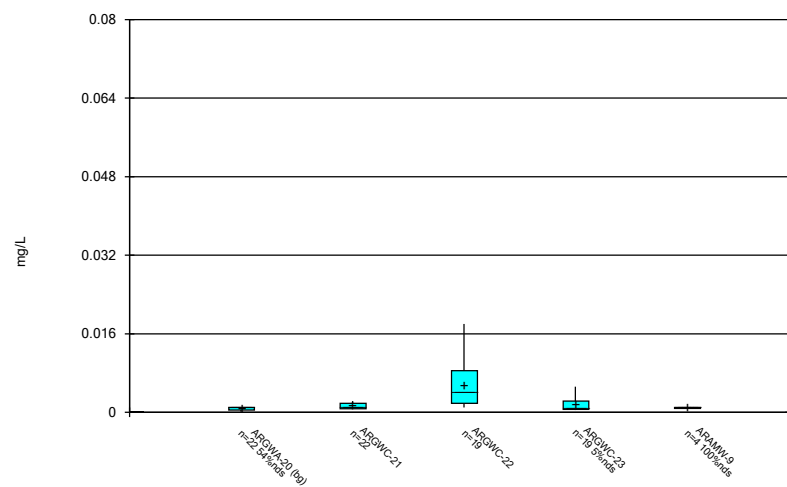
Constituent: Chromium Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



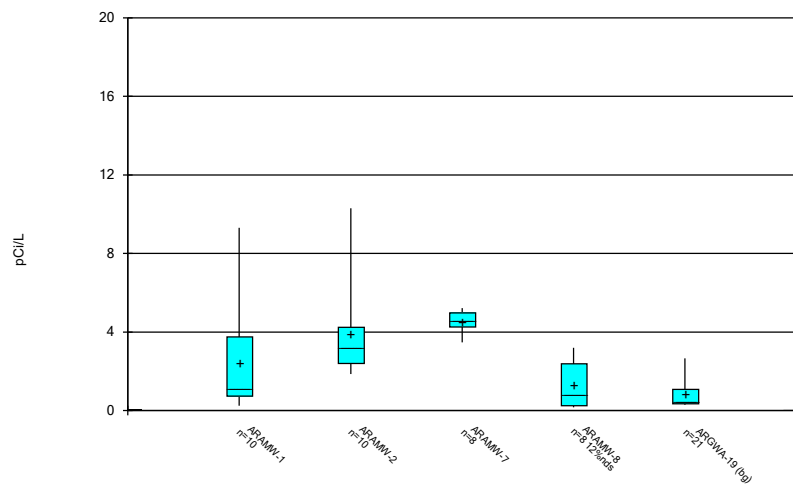
Constituent: Cobalt Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



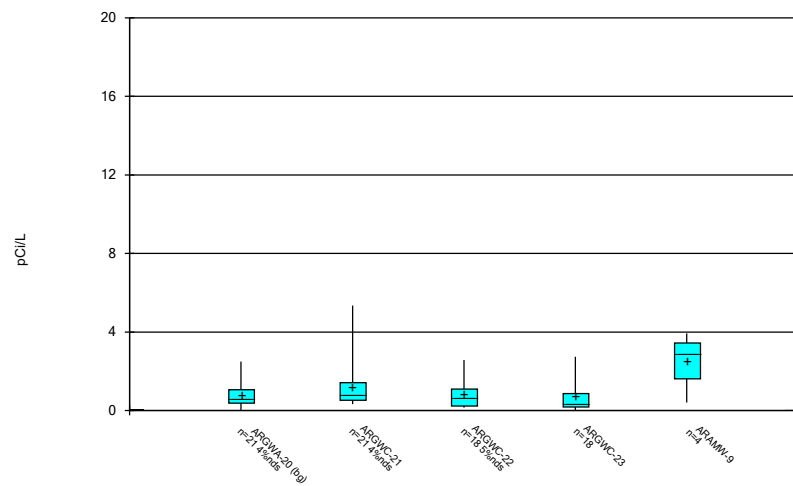
Constituent: Cobalt Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



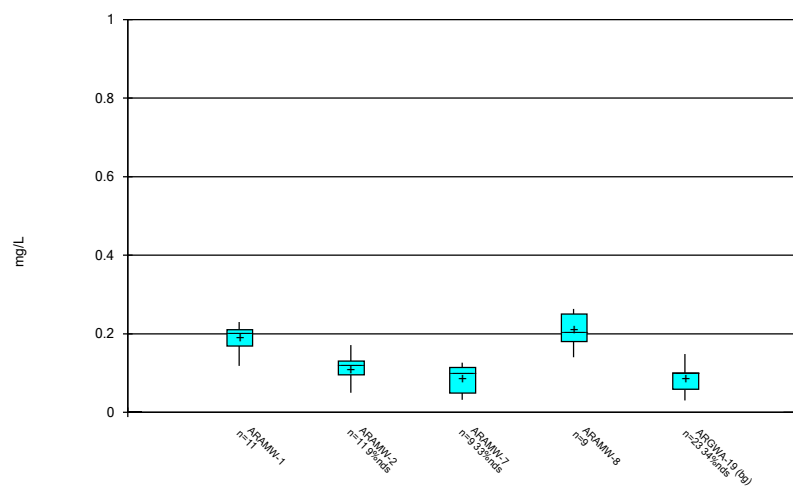
Constituent: Combined Radium 226 + 228 Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



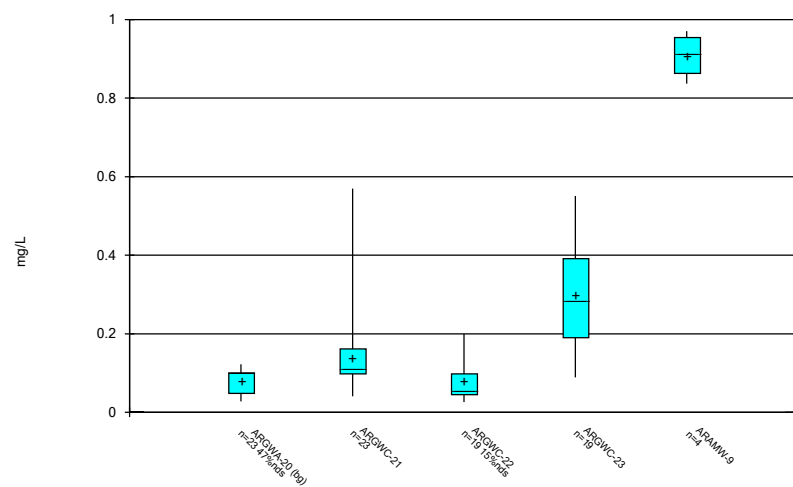
Constituent: Combined Radium 226 + 228 Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



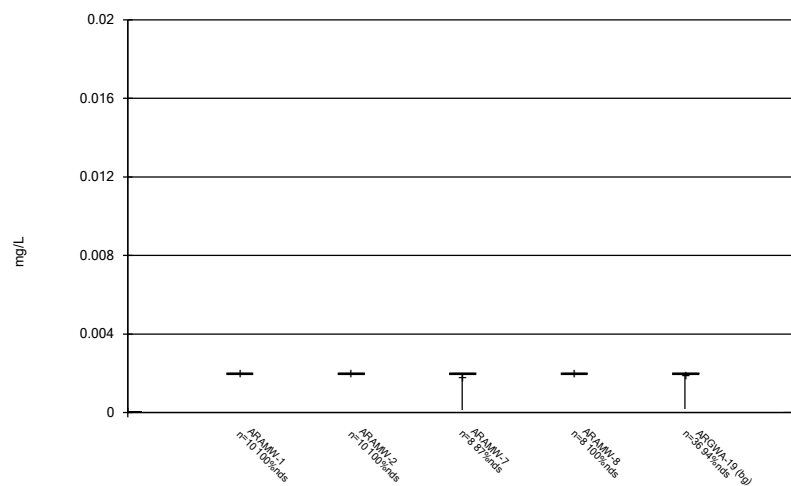
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



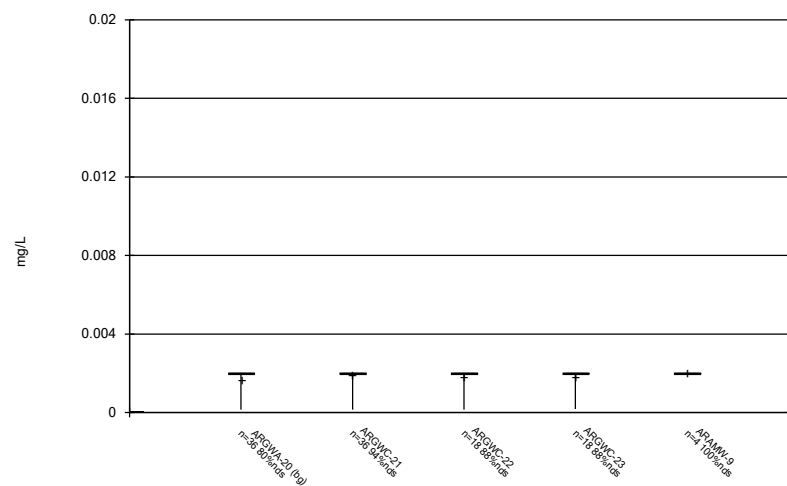
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



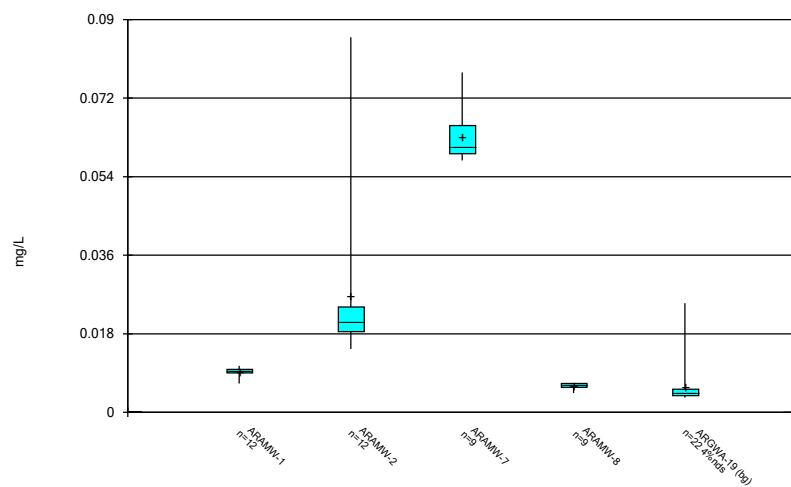
Constituent: Lead Analysis Run 10/1/2024 9:33 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



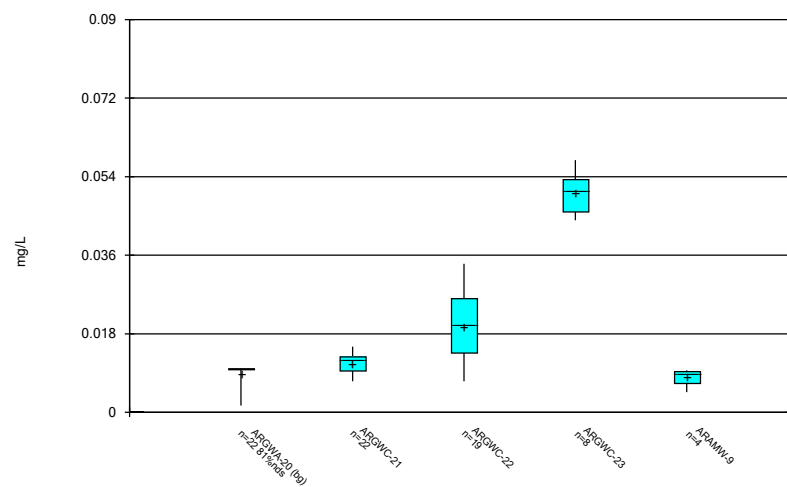
Constituent: Lead Analysis Run 10/1/2024 9:33 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



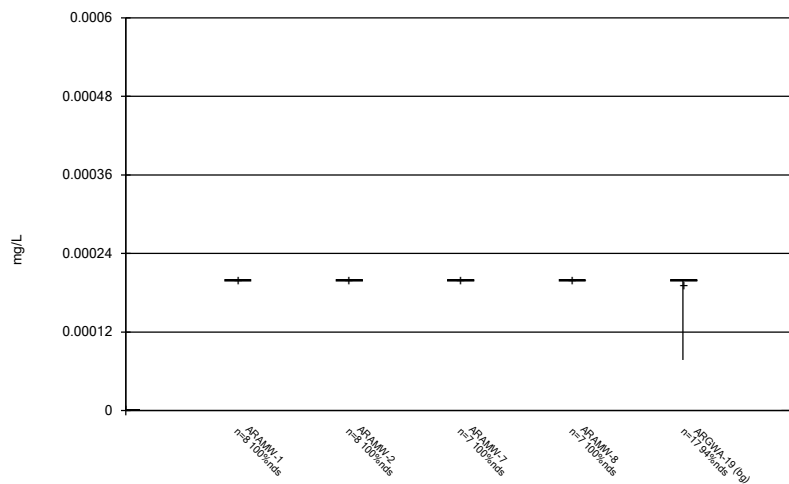
Constituent: Lithium Analysis Run 10/1/2024 9:33 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



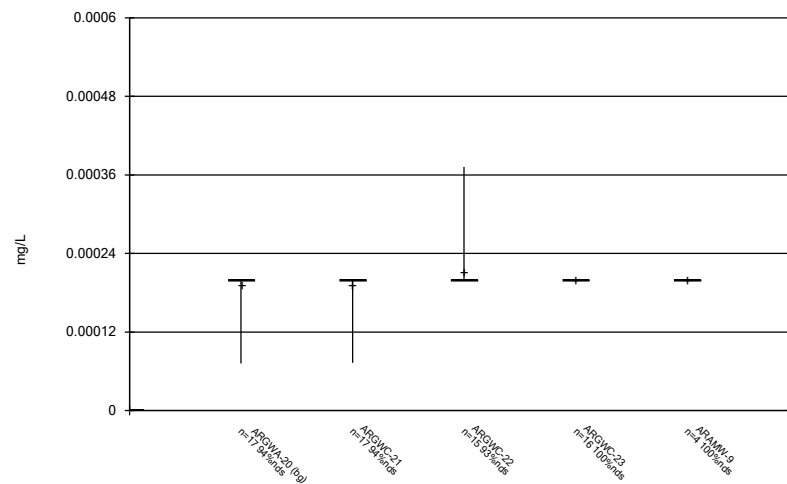
Constituent: Lithium Analysis Run 10/1/2024 9:33 AM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



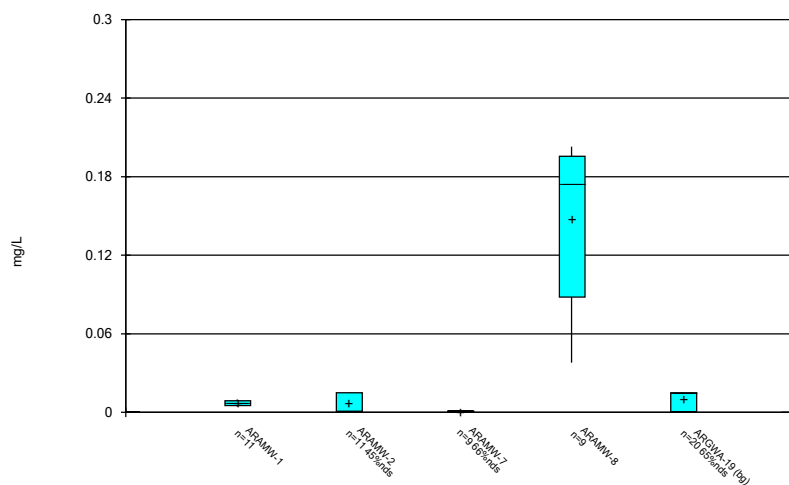
Constituent: Mercury Analysis Run 9/26/2024 12:30 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



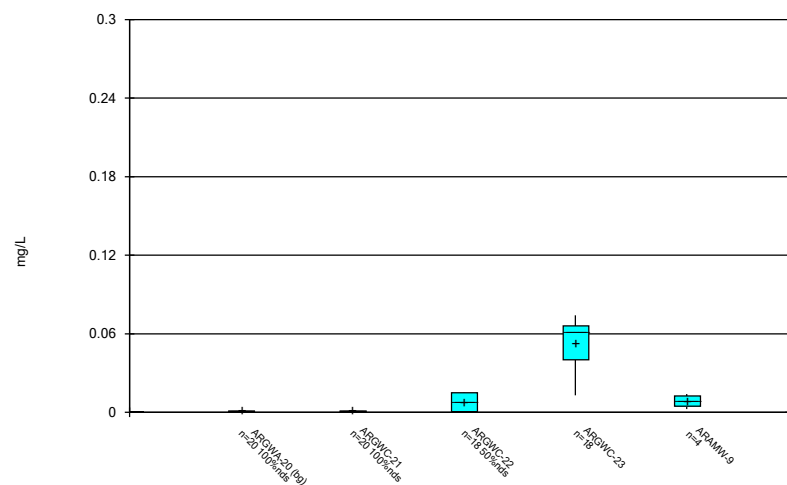
Constituent: Mercury Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



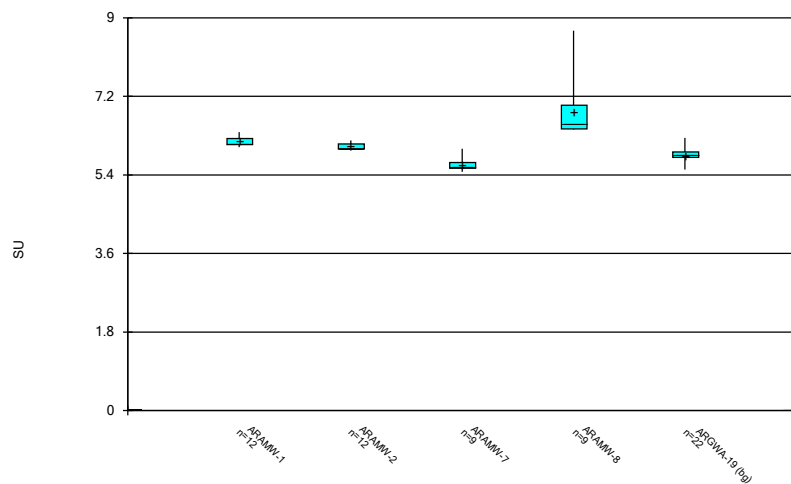
Constituent: Molybdenum Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



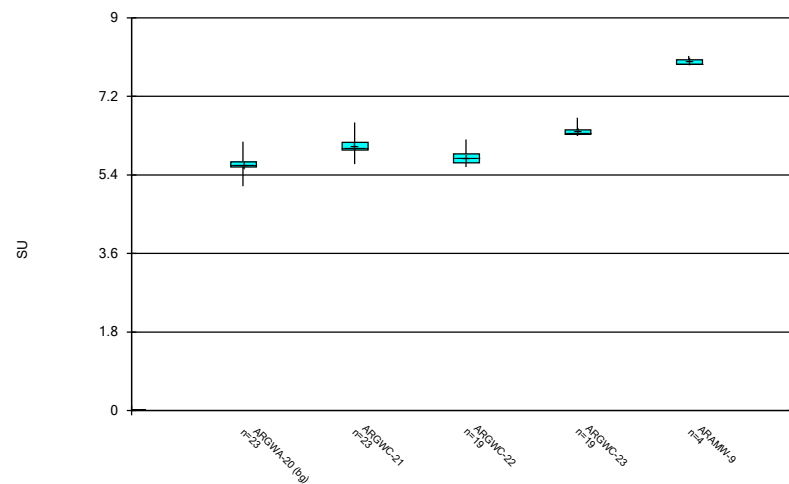
Constituent: Molybdenum Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



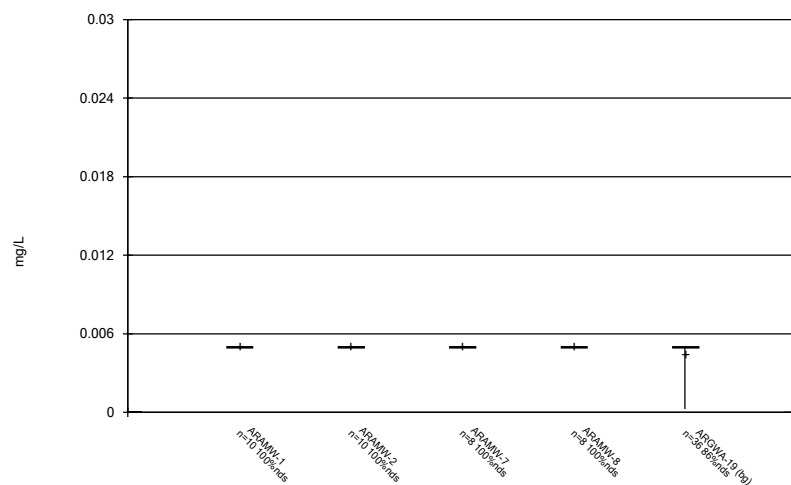
Constituent: pH Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



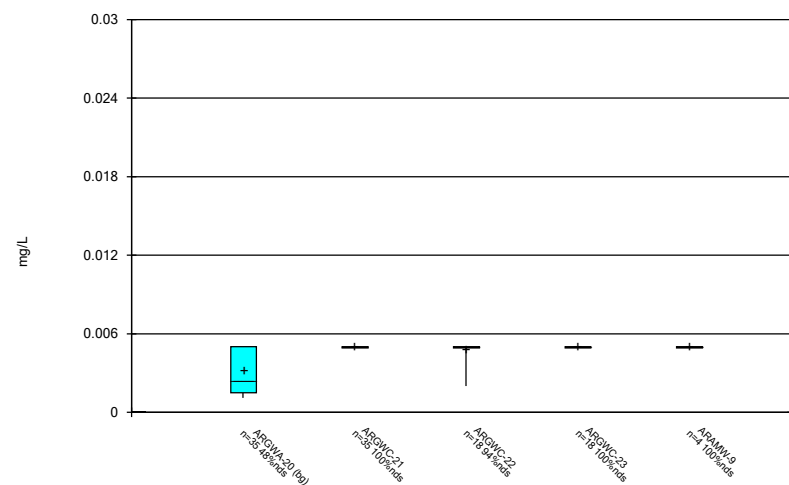
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



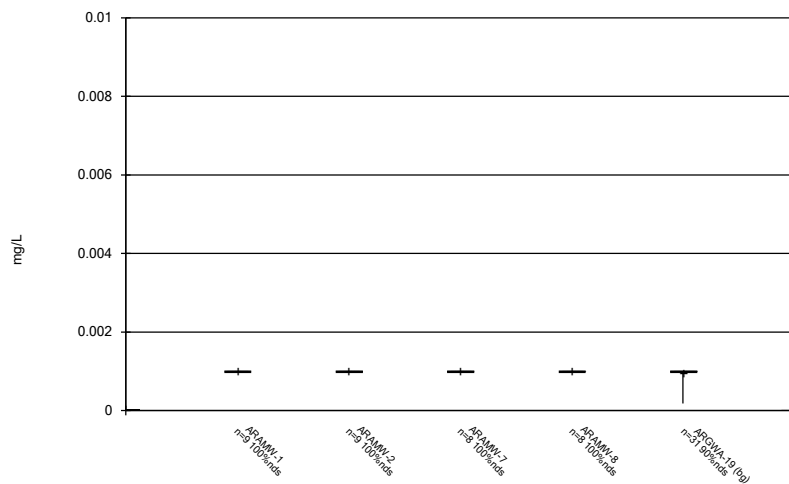
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



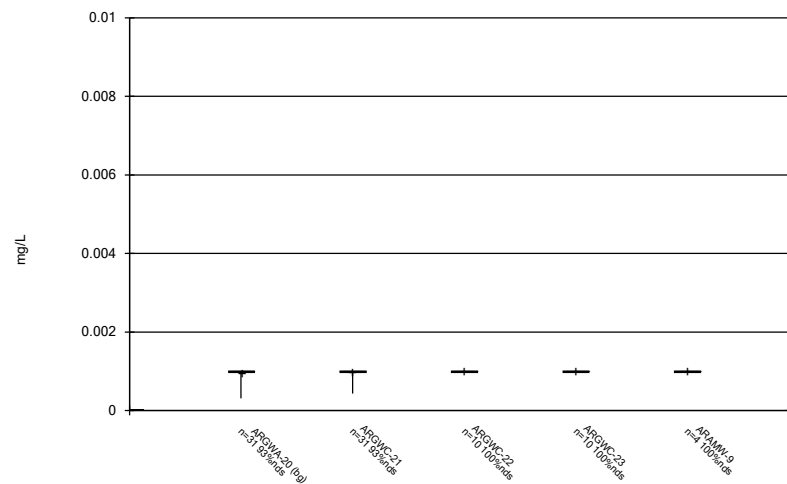
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



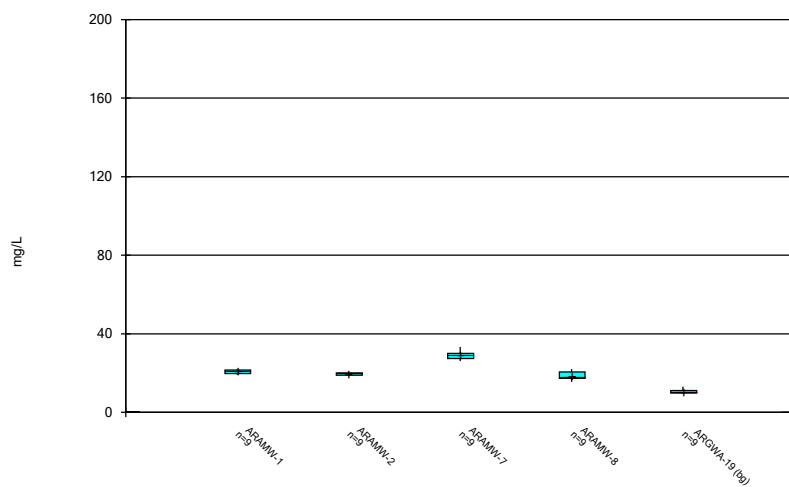
Constituent: Silver Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



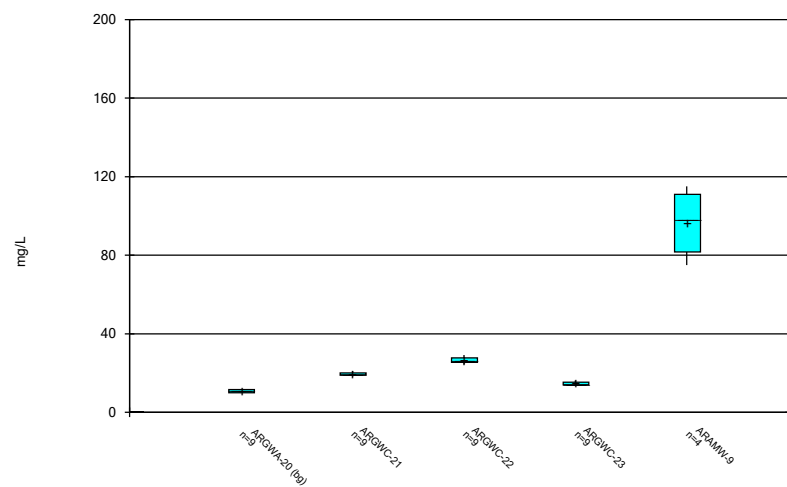
Constituent: Silver Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



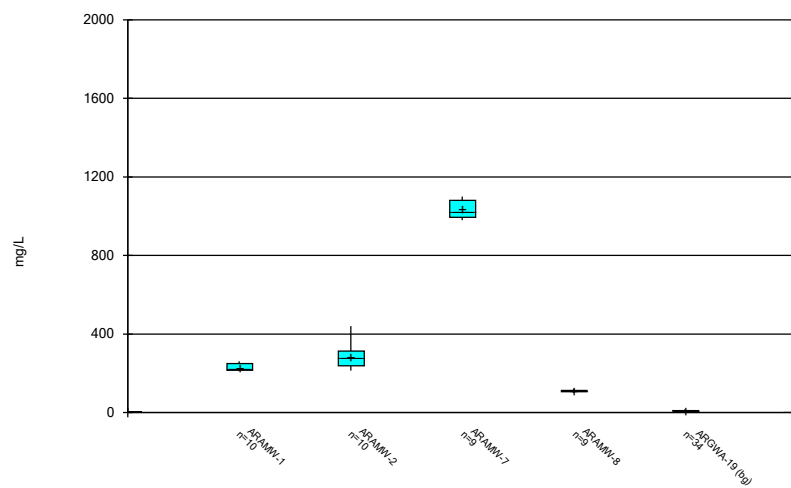
Constituent: Sodium Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



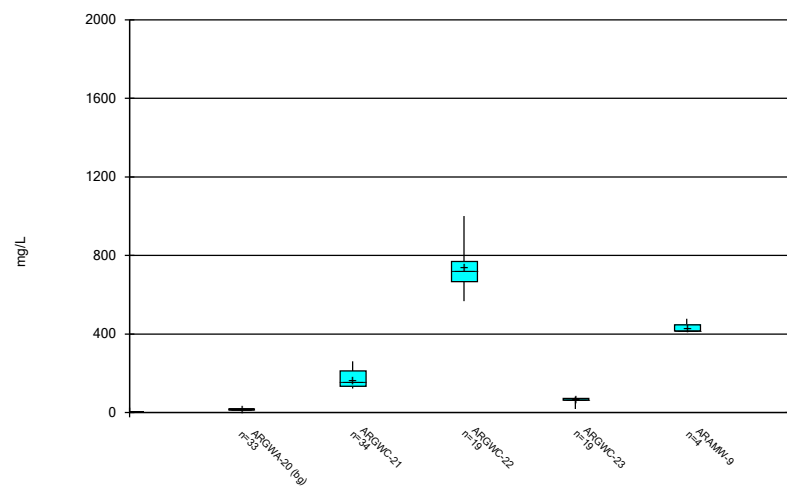
Constituent: Sodium Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



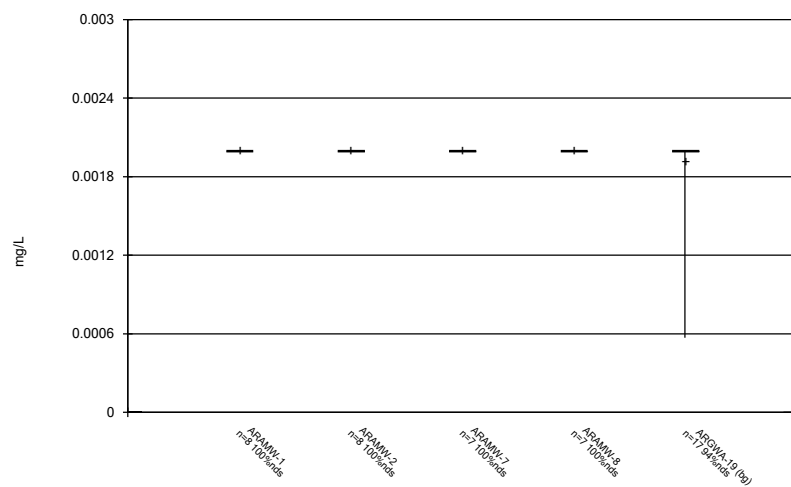
Constituent: Sulfate Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



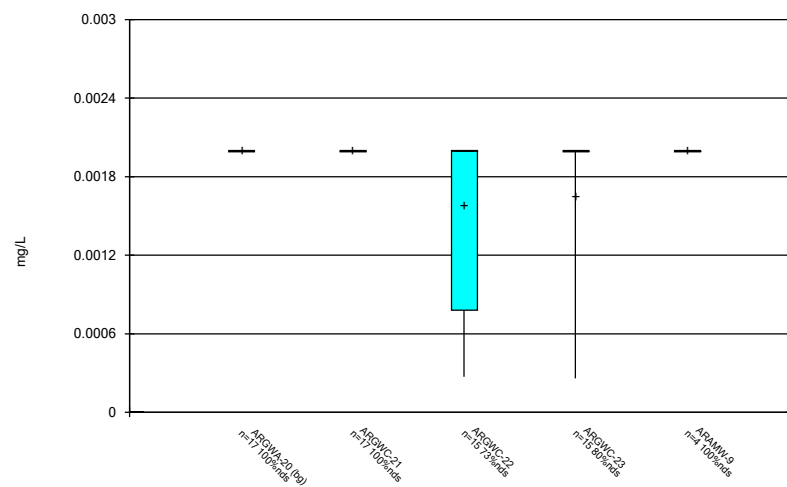
Constituent: Sulfate Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



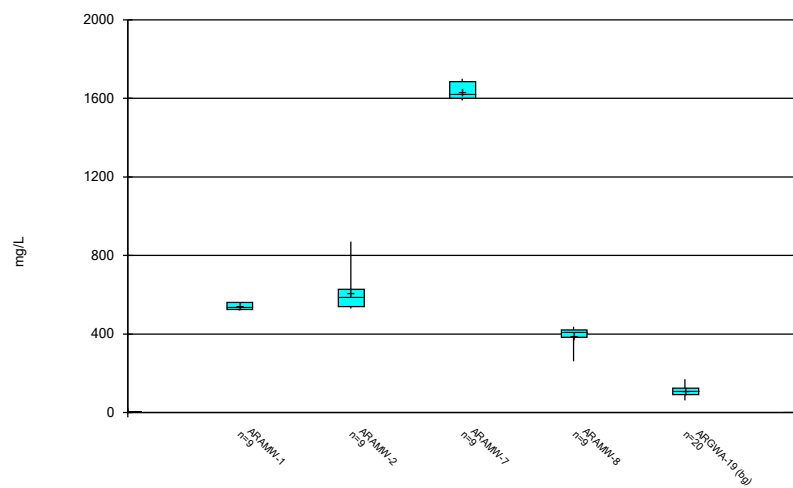
Constituent: Thallium Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



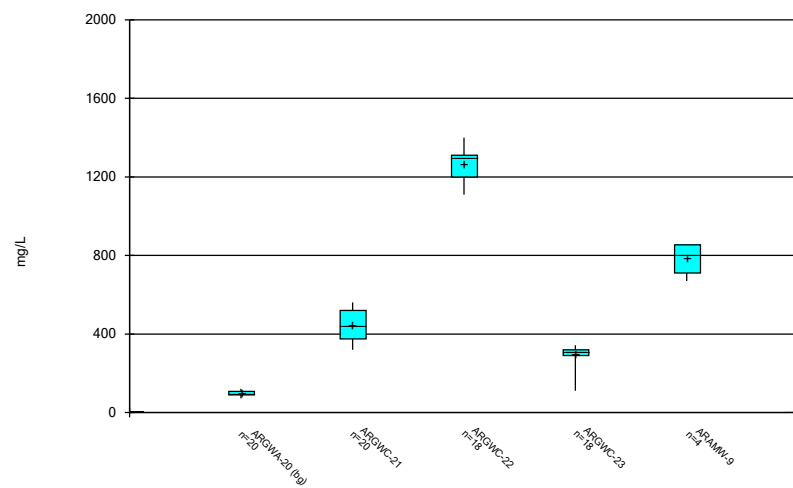
Constituent: Thallium Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 9/26/2024 12:31 PM View: Descriptive
Plant Arkwright Client: Southern Company Data: Arkwright No 2

FIGURE C.

Outlier Summary

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 12:33 PM

	ARGWA-19 pH (SU)	ARGWA-20 Sulfate (mg/L)	ARGWC-21 Sulfate (mg/L)	ARGWA-20 Sulfate (mg/L)
5/14/2009			0.0058 (o)	
5/15/2009		0.007 (o)		41.3 (o)
8/29/2016	6.75 (o)			

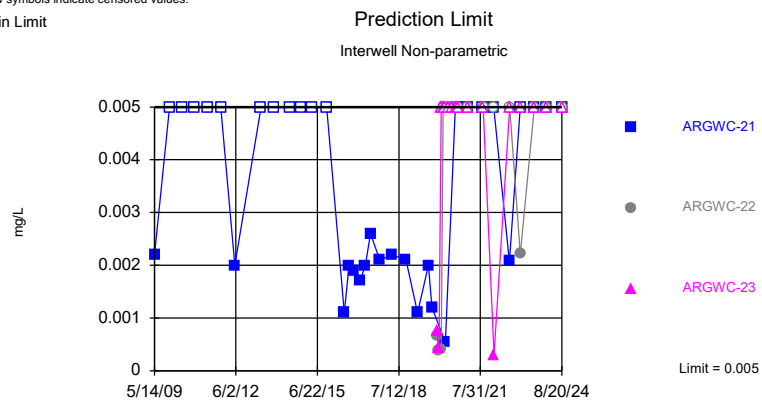
FIGURE D.

Appendix I Interwell Prediction Limits - All Results (No Significant)

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:45 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-21	0.005	n/a	8/20/2024	0.005ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-22	0.005	n/a	8/20/2024	0.005ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	ARGWC-23	0.005	n/a	8/20/2024	0.005ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Barium (mg/L)	ARGWC-21	0.107	n/a	8/20/2024	0.0431	No	72	n/a	n/a	0	n/a	n/a	0.0003715	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-22	0.107	n/a	8/20/2024	0.0223	No	72	n/a	n/a	0	n/a	n/a	0.0003715	NP Inter (normality) 1 of 2
Barium (mg/L)	ARGWC-23	0.107	n/a	8/20/2024	0.105	No	72	n/a	n/a	0	n/a	n/a	0.0003715	NP Inter (normality) 1 of 2
Lead (mg/L)	ARGWC-21	0.002	n/a	8/20/2024	0.002ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-22	0.002	n/a	8/20/2024	0.002ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Lead (mg/L)	ARGWC-23	0.002	n/a	8/20/2024	0.002ND	No	72	n/a	n/a	87.5	n/a	n/a	0.0003715	NP Inter (NDs) 1 of 2
Selenium (mg/L)	ARGWC-22	0.005	n/a	8/20/2024	0.005ND	No	71	n/a	n/a	67.61	n/a	n/a	0.0003804	NP Inter (NDs) 1 of 2
Silver (mg/L)	ARGWC-21	0.001	n/a	8/20/2024	0.001ND	No	62	n/a	n/a	91.94	n/a	n/a	0.0004981	NP Inter (NDs) 1 of 2

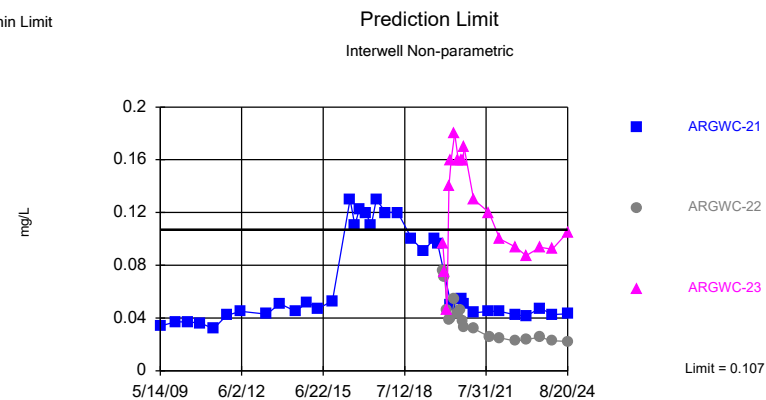
Within Limit



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 87.5% NDs. Annual per-constituent alpha = 0.002227. Individual comparison alpha = 0.0003715 (1 of 2). Comparing 3 points to limit.

Constituent: Arsenic Analysis Run 9/26/2024 11:43 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

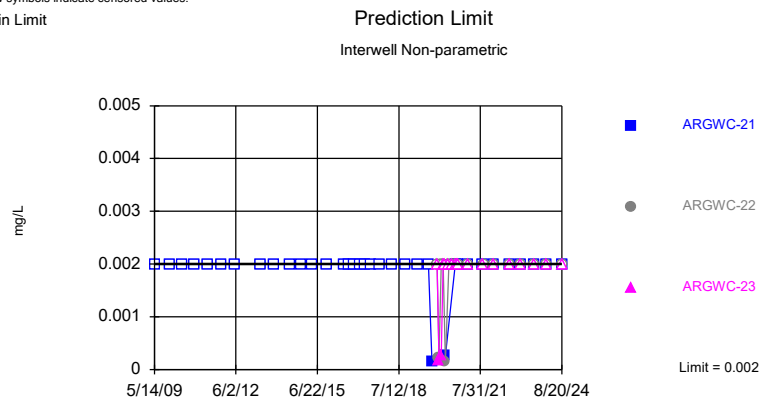
Within Limit



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 72 background values. Annual per-constituent alpha = 0.002227. Individual comparison alpha = 0.0003715 (1 of 2). Comparing 3 points to limit.

Constituent: Barium Analysis Run 9/26/2024 11:43 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

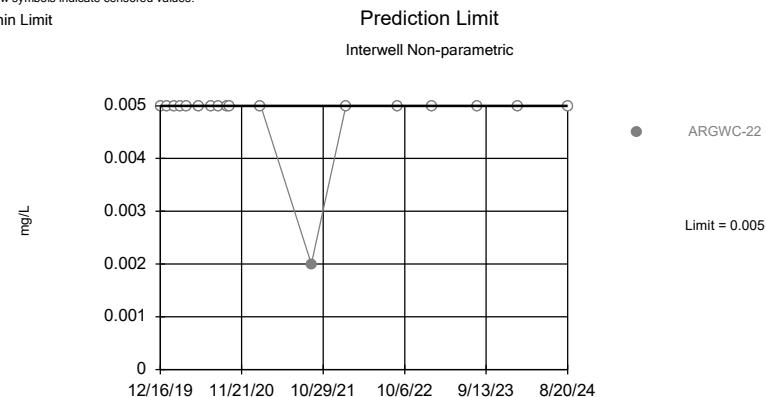
Within Limit



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 87.5% NDs. Annual per-constituent alpha = 0.002227. Individual comparison alpha = 0.0003715 (1 of 2). Comparing 3 points to limit.

Constituent: Lead Analysis Run 9/26/2024 11:43 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Within Limit



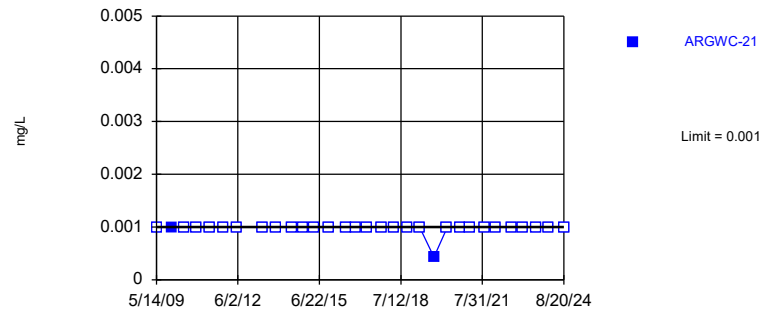
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 71 background values. 67.61% NDs. Annual per-constituent alpha = 0.00228. Individual comparison alpha = 0.0003804 (1 of 2). Assumes 2 future values.

Constituent: Selenium Analysis Run 9/26/2024 11:43 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

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 62 background values. 91.94% NDs. Annual per-constituent alpha = 0.002985. Individual comparison alpha = 0.0004981 (1 of 2). Assumes 2 future values.

Constituent: Silver Analysis Run 9/26/2024 11:43 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 2

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
5/5/2009	<0.005				
5/14/2009		0.0022			
5/15/2009			0.0015		
12/5/2009	<0.005	<0.005	<0.005		
6/1/2010	<0.005		<0.005		
6/2/2010		<0.005			
11/11/2010	<0.005	<0.005	<0.005		
5/17/2011	<0.005	<0.005	<0.005		
11/8/2011	<0.005	<0.005	<0.005		
5/16/2012	<0.005	0.002 (J)	<0.005		
5/14/2013	<0.005	<0.005	<0.005		
11/5/2013	<0.005	<0.005	<0.005		
6/9/2014	<0.005	<0.005	<0.005		
11/18/2014		<0.005	<0.005		
11/19/2014	<0.005				
4/14/2015	<0.005	<0.005	<0.005		
10/29/2015		<0.005			
11/4/2015	<0.005		<0.005		
6/22/2016	<0.005		0.00084 (J)		
6/23/2016		0.0011 (J)			
8/29/2016	<0.005		0.00049 (J)		
8/30/2016		0.002			
10/24/2016	<0.005		<0.005		
10/26/2016		0.0019 (J)			
1/25/2017	<0.005	0.0017	<0.005		
4/10/2017	<0.005	0.002	0.00056 (J)		
6/19/2017	<0.005	0.0026			
6/20/2017			0.00068 (J)		
10/24/2017	<0.005	0.0021	<0.005		
4/9/2018			<0.005		
4/10/2018	<0.005	0.0022			
10/16/2018	<0.005	0.0021	<0.005		
3/26/2019	<0.005				
3/27/2019		0.0011 (J)	<0.005		
8/20/2019	0.00036 (J)	0.002	0.00047 (J)		
10/7/2019	<0.005		<0.005		
10/8/2019		0.0012 (J)			
12/16/2019				0.00075 (J)	0.00066 (J)
1/14/2020				0.00042 (J)	0.00038 (J)
2/11/2020				<0.005	0.0004 (J)
3/9/2020				<0.005	<0.005
4/6/2020			0.00042 (J)		
4/7/2020	0.0006 (J)	0.00054 (J)		<0.005	<0.005
5/27/2020				<0.005	<0.005
7/15/2020				<0.005	<0.005
8/19/2020	<0.005		<0.005		<0.005
8/20/2020				<0.005	
8/21/2020		<0.005			
9/22/2020				<0.005	<0.005
9/29/2020	<0.005				
9/30/2020			<0.005		<0.005
10/1/2020		<0.005		<0.005	

Prediction Limit

Page 2

Constituent: Arsenic (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
2/9/2021	<0.005		<0.005		
2/10/2021		<0.005		<0.005	<0.005
9/7/2021	<0.005				
9/8/2021		<0.005	<0.005		
9/9/2021				<0.005	
9/10/2021					<0.005
2/1/2022	<0.005	<0.005	<0.005		
2/2/2022					<0.005
2/3/2022				0.0003 (J)	
9/1/2022	<0.005	0.00207 (J)			
9/2/2022			<0.005		
9/6/2022				<0.005	<0.005
1/31/2023	<0.005	<0.005		<0.005	0.00221 (J)
2/1/2023			<0.005		
8/8/2023	<0.005			<0.005	<0.005
8/9/2023		<0.005			
8/10/2023			<0.005		
1/23/2024	<0.005		<0.005		<0.005
1/24/2024		<0.005		<0.005	
8/20/2024	<0.005	<0.005	<0.005	<0.005	<0.005

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
5/5/2009	0.057				
5/14/2009		0.034			
5/15/2009			0.1		
12/5/2009	0.05	0.037	0.079		
6/1/2010	0.037		0.077		
6/2/2010		0.037			
11/11/2010	0.039	0.036	0.072		
5/17/2011	0.037	0.032	0.064		
11/8/2011	0.045	0.042	0.07		
5/16/2012	0.0518	0.0451	0.0741		
5/14/2013	0.067	0.043	0.074		
11/5/2013	0.066	0.051	0.075		
6/9/2014	0.062	0.045	0.08		
11/18/2014		0.052	0.078		
11/19/2014	0.054				
4/14/2015	0.046	0.047	0.073		
10/29/2015		0.053			
11/4/2015	0.046		0.077		
6/22/2016	0.039		0.078		
6/23/2016		0.13			
8/29/2016	0.04		0.07		
8/30/2016		0.11			
10/24/2016	0.0444		0.0738		
10/26/2016		0.122			
1/25/2017	0.045	0.12	0.084		
4/10/2017	0.039	0.11	0.073		
6/19/2017	0.041	0.13			
6/20/2017			0.078		
10/24/2017	0.041	0.12	0.081		
4/9/2018			0.081		
4/10/2018	0.044	0.12			
10/16/2018	0.047	0.1	0.08		
3/26/2019	0.056				
3/27/2019		0.091	0.082		
8/20/2019	0.052	0.1	0.079		
10/7/2019	0.049		0.076		
10/8/2019		0.096			
12/16/2019				0.096	0.076
1/14/2020				0.075	0.071
2/11/2020				0.046	0.046
3/9/2020				0.14	0.039
4/6/2020			0.075		
4/7/2020	0.047	0.05		0.16	0.04
5/27/2020				0.18	0.054
7/15/2020				0.16	0.043
8/19/2020	0.044		0.085		0.046
8/20/2020				0.16	
8/21/2020		0.054			
9/22/2020				0.16	0.038
9/29/2020	0.04				
9/30/2020			0.08		0.033
10/1/2020		0.051		0.17	

Prediction Limit

Page 2

Constituent: Barium (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
2/9/2021	0.032		0.078		
2/10/2021		0.044		0.13	0.032
9/7/2021	0.03				
9/8/2021		0.045	0.085		
9/9/2021				0.12	
9/10/2021					0.026
2/1/2022	0.031	0.045	0.079		
2/2/2022					0.025
2/3/2022				0.1	
9/1/2022	0.0303	0.0425			
9/2/2022			0.0806		
9/6/2022				0.0939	0.0226
1/31/2023	0.031	0.0414		0.0872	0.0237
2/1/2023			0.0919		
8/8/2023	0.0337			0.0936	0.0255
8/9/2023		0.0474			
8/10/2023			0.107		
1/23/2024	0.0348		0.0978		0.0227
1/24/2024		0.0427		0.0922	
8/20/2024	0.0293	0.0431	0.0863	0.105	0.0223

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
5/5/2009	<0.002				
5/14/2009		<0.002			
5/15/2009			<0.002		
12/5/2009	<0.002	<0.002	<0.002		
6/1/2010	<0.002		<0.002		
6/2/2010		<0.002			
11/11/2010	<0.002	<0.002	<0.002		
5/17/2011	<0.002	<0.002	<0.002		
11/8/2011	<0.002	<0.002	<0.002		
5/16/2012	<0.002	<0.002	<0.002		
5/14/2013	<0.002	<0.002	<0.002		
11/5/2013	<0.002	<0.002	<0.002		
6/9/2014	<0.002	<0.002	<0.002		
11/18/2014		<0.002	<0.002		
11/19/2014	<0.002				
4/14/2015	<0.002	<0.002	<0.002		
10/29/2015		<0.002			
11/4/2015	<0.002		<0.002		
6/22/2016	<0.002		<0.002		
6/23/2016		<0.002			
8/29/2016	<0.002		<0.002		
8/30/2016		<0.002			
10/24/2016	<0.002		<0.002		
10/26/2016		<0.002			
1/25/2017	<0.002	<0.002	0.00037 (J)		
4/10/2017	<0.002	<0.002	<0.002		
6/19/2017	<0.002	<0.002			
6/20/2017			<0.002		
10/24/2017	<0.002	<0.002	<0.002		
4/9/2018			<0.002		
4/10/2018	<0.002	<0.002			
10/16/2018	<0.002	<0.002	<0.002		
3/26/2019	<0.002				
3/27/2019		<0.002	<0.002		
8/20/2019	<0.002	<0.002	<0.002		
10/7/2019	0.00018 (J)		0.00014 (J)		
10/8/2019		0.00015 (J)			
12/16/2019				<0.002	<0.002
1/14/2020				0.00018 (J)	0.00022 (J)
2/11/2020				0.00026 (J)	<0.002
3/9/2020				<0.002	<0.002
4/6/2020			0.00033 (J)		
4/7/2020	0.00037 (J)	0.00026 (J)		<0.002	0.00014 (J)
5/27/2020				<0.002	<0.002
7/15/2020				<0.002	<0.002
8/19/2020	<0.002		0.00039 (J)		<0.002
8/20/2020				<0.002	
8/21/2020		<0.002			
9/22/2020				<0.002	<0.002
9/29/2020	<0.002				
9/30/2020			0.00022 (J)		<0.002
10/1/2020		<0.002		<0.002	

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
2/9/2021	<0.002		0.00033 (J)		
2/10/2021		<0.002		<0.002	<0.002
9/7/2021	<0.002				
9/8/2021		<0.002	0.00024 (J)		
9/9/2021				<0.002	
9/10/2021					<0.002
2/1/2022	<0.002	<0.002	<0.002		
2/2/2022					<0.002
2/3/2022				<0.002	
9/1/2022	<0.002	<0.002			
9/2/2022			<0.002		
9/6/2022				<0.002	<0.002
1/31/2023	<0.002	<0.002		<0.002	<0.002
2/1/2023			<0.002		
8/8/2023	<0.002			<0.002	<0.002
8/9/2023		<0.002			
8/10/2023			<0.002		
1/23/2024	<0.002		<0.002		<0.002
1/24/2024		<0.002		<0.002	
8/20/2024	<0.002	<0.002	<0.002	<0.002	<0.002

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWA-20 (bg)	ARGWC-22
5/5/2009	0.0043		
5/15/2009		0.007 (o)	
12/5/2009	<0.005	<0.005	
6/1/2010	<0.005	<0.005	
11/11/2010	<0.005	<0.005	
5/17/2011	<0.005	<0.005	
11/8/2011	<0.005	<0.005	
5/16/2012	<0.005	0.0024 (J)	
5/14/2013	<0.005	<0.005	
11/5/2013	<0.005	<0.005	
6/9/2014	<0.005	<0.005	
11/18/2014		<0.005	
11/19/2014	<0.005		
4/14/2015	<0.005	<0.005	
11/4/2015	<0.005	<0.005	
6/22/2016	0.00025 (J)	0.0019	
8/29/2016	0.0004 (J)	0.0019	
10/24/2016	<0.005	0.0023 (J)	
1/25/2017	<0.005	0.0015	
4/10/2017	<0.005	0.0011 (J)	
6/19/2017	0.00025 (J)		
6/20/2017		0.0016	
10/24/2017	<0.005	0.0012 (J)	
4/9/2018		0.0012 (J)	
4/10/2018	0.00074 (J)		
10/16/2018	<0.005	0.0015	
3/26/2019	<0.005		
3/27/2019		0.0015	
8/20/2019	<0.005	0.0015 (J)	
10/7/2019	<0.005	0.0016 (J)	
12/16/2019			<0.005
1/14/2020			<0.005
2/11/2020			<0.005
3/9/2020			<0.005
4/6/2020		0.0017 (J)	
4/7/2020	<0.005		<0.005
5/27/2020			<0.005
7/15/2020			<0.005
8/19/2020	<0.005	0.0015 (J)	<0.005
9/22/2020			<0.005
9/29/2020	<0.005		
9/30/2020		0.0016 (J)	<0.005
2/9/2021	<0.005	0.0016 (J)	
2/10/2021			<0.005
9/7/2021	<0.005		
9/8/2021		<0.005	
9/10/2021			0.002 (J)
2/1/2022	<0.005	0.0015 (J)	
2/2/2022			<0.005
9/1/2022	<0.005		
9/2/2022		<0.005	
9/6/2022			<0.005

Prediction Limit

Page 2

Constituent: Selenium (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWA-20 (bg)	ARGWC-22
1/31/2023	<0.005		<0.005
2/1/2023		<0.005	
8/8/2023	<0.005		<0.005
8/10/2023		<0.005	
1/23/2024	<0.005	<0.005	<0.005
8/20/2024	<0.005	<0.005	<0.005

Prediction Limit

Constituent: Silver (mg/L) Analysis Run 9/26/2024 11:45 AM View: Appendix I

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)
5/5/2009	<0.001		
5/14/2009		<0.001	
5/15/2009			<0.001
12/5/2009	0.00075	0.001	0.00043
6/1/2010	<0.001		<0.001
6/2/2010		<0.001	
11/11/2010	<0.001	<0.001	<0.001
5/17/2011	<0.001	<0.001	<0.001
11/8/2011	<0.001	<0.001	<0.001
5/16/2012	<0.001	<0.001	<0.001
5/14/2013	<0.001	<0.001	<0.001
11/5/2013	<0.001	<0.001	<0.001
6/9/2014	<0.001	<0.001	<0.001
11/18/2014		<0.001	<0.001
11/19/2014	<0.001		
4/14/2015	<0.001	<0.001	<0.001
10/29/2015		<0.001	
11/4/2015	<0.001		<0.001
6/22/2016	<0.001		<0.001
6/23/2016		<0.001	
10/24/2016	<0.001		<0.001
10/26/2016		<0.001	
4/10/2017	<0.001	<0.001	<0.001
10/24/2017	<0.001	<0.001	<0.001
4/9/2018			<0.001
4/10/2018	<0.001	<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	0.00056 (J)		0.00031 (J)
10/8/2019		0.00043 (J)	
4/6/2020			<0.001
4/7/2020	0.00018 (J)	<0.001	
9/29/2020	<0.001		
9/30/2020			<0.001
10/1/2020		<0.001	
2/9/2021	<0.001		<0.001
2/10/2021		<0.001	
9/7/2021	<0.001		
9/8/2021		<0.001	<0.001
2/1/2022	<0.001	<0.001	<0.001
9/1/2022	<0.001	<0.001	
9/2/2022			<0.001
1/31/2023	<0.001	<0.001	
2/1/2023			<0.001
8/8/2023	<0.001		
8/9/2023		<0.001	
8/10/2023			<0.001
1/23/2024	<0.001		<0.001
1/24/2024		<0.001	
8/20/2024	<0.001	<0.001	<0.001

FIGURE E.

Appendix III Interwell Prediction Limits - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-21	0.092	n/a	8/20/2024	1.13	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-22	0.092	n/a	8/20/2024	3.09	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality) 1 of 2
Boron (mg/L)	ARGWC-23	0.092	n/a	8/20/2024	0.434	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality) 1 of 2
Calcium (mg/L)	ARGWC-21	13.81	n/a	8/20/2024	78	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	ARGWC-22	13.81	n/a	8/20/2024	194	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	ARGWC-23	13.81	n/a	8/20/2024	79.6	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2
Fluoride (mg/L)	ARGWC-23	0.148	n/a	8/20/2024	0.365	Yes	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality) 1 of 2
pH (SU)	ARGWC-21	6.086	5.41	8/20/2024	6.2	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2
pH (SU)	ARGWC-23	6.086	5.41	8/20/2024	6.34	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2
Sulfate (mg/L)	ARGWC-21	21	n/a	8/20/2024	219	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-22	21	n/a	8/20/2024	674	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality) 1 of 2
Sulfate (mg/L)	ARGWC-23	21	n/a	8/20/2024	80.1	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-21	141.1	n/a	8/20/2024	520	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-22	141.1	n/a	8/20/2024	1180	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	ARGWC-23	141.1	n/a	8/20/2024	328	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2

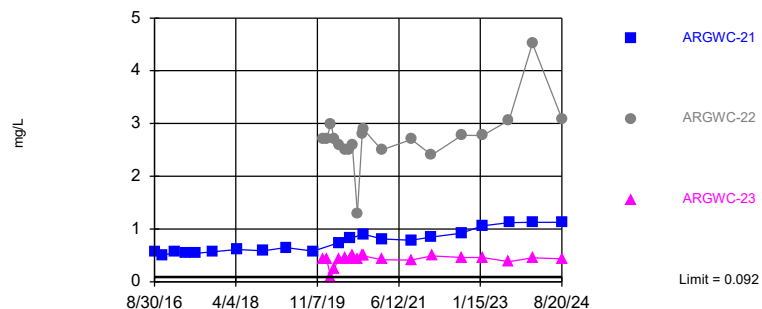
Appendix III Interwell Prediction Limits - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	ARGWC-21	0.092	n/a	8/20/2024	1.13	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality)	1 of 2
Boron (mg/L)	ARGWC-22	0.092	n/a	8/20/2024	3.09	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality)	1 of 2
Boron (mg/L)	ARGWC-23	0.092	n/a	8/20/2024	0.434	Yes	42	n/a	n/a	26.19	n/a	n/a	0.001066	NP Inter (normality)	1 of 2
Calcium (mg/L)	ARGWC-21	13.81	n/a	8/20/2024	78	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2	
Calcium (mg/L)	ARGWC-22	13.81	n/a	8/20/2024	194	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2	
Calcium (mg/L)	ARGWC-23	13.81	n/a	8/20/2024	79.6	Yes	42	3.215	0.2873	0	None	sqrt(x)	0.002505	Param Inter 1 of 2	
Chloride (mg/L)	ARGWC-21	16.2	n/a	8/20/2024	3.18	No	68	n/a	n/a	0	n/a	n/a	0.0004166	NP Inter (normality)	1 of 2
Chloride (mg/L)	ARGWC-22	16.2	n/a	8/20/2024	7.25	No	68	n/a	n/a	0	n/a	n/a	0.0004166	NP Inter (normality)	1 of 2
Chloride (mg/L)	ARGWC-23	16.2	n/a	8/20/2024	3.68	No	68	n/a	n/a	0	n/a	n/a	0.0004166	NP Inter (normality)	1 of 2
Fluoride (mg/L)	ARGWC-21	0.148	n/a	8/20/2024	0.124	No	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality)	1 of 2
Fluoride (mg/L)	ARGWC-22	0.148	n/a	8/20/2024	0.066J	No	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality)	1 of 2
Fluoride (mg/L)	ARGWC-23	0.148	n/a	8/20/2024	0.365	Yes	46	n/a	n/a	41.3	n/a	n/a	0.0009064	NP Inter (normality)	1 of 2
pH (SU)	ARGWC-21	6.086	5.41	8/20/2024	6.2	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2	
pH (SU)	ARGWC-22	6.086	5.41	8/20/2024	5.76	No	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2	
pH (SU)	ARGWC-23	6.086	5.41	8/20/2024	6.34	Yes	45	5.748	0.1948	0	None	No	0.001253	Param Inter 1 of 2	
Sulfate (mg/L)	ARGWC-21	21	n/a	8/20/2024	219	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality)	1 of 2
Sulfate (mg/L)	ARGWC-22	21	n/a	8/20/2024	674	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality)	1 of 2
Sulfate (mg/L)	ARGWC-23	21	n/a	8/20/2024	80.1	Yes	67	n/a	n/a	0	n/a	n/a	0.0004301	NP Inter (normality)	1 of 2
Total Dissolved Solids (mg/L)	ARGWC-21	141.1	n/a	8/20/2024	520	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	ARGWC-22	141.1	n/a	8/20/2024	1180	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	ARGWC-23	141.1	n/a	8/20/2024	328	Yes	40	104.7	20.82	0	None	No	0.002505	Param Inter 1 of 2	

Exceeds Limit: ARGWC-21, ARGWC-22,
ARGWC-23

Prediction Limit
Interwell Non-parametric

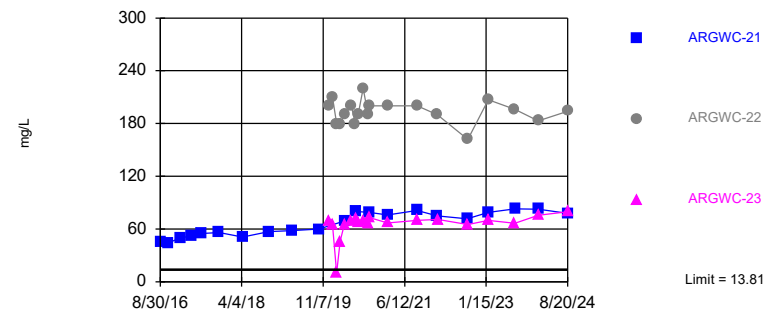


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. 26.19% NDs. Annual per-constituent alpha = 0.006378. Individual comparison alpha = 0.001066 (1 of 2). Comparing 3 points to limit.

Constituent: Boron Analysis Run 9/26/2024 11:46 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Exceeds Limit: ARGWC-21, ARGWC-22,
ARGWC-23

Prediction Limit
Interwell Parametric

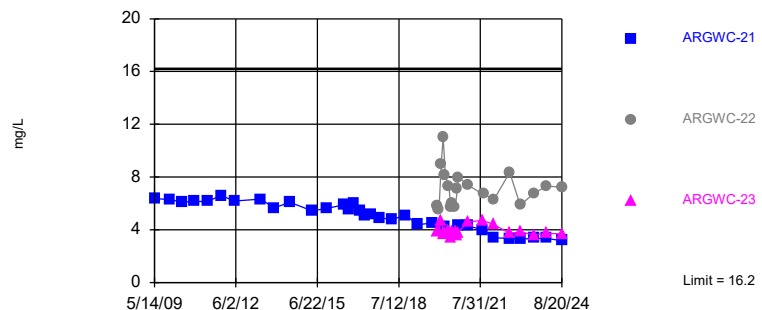


Background Data Summary (based on square root transformation): Mean=3.215, Std. Dev.=0.2873, n=42. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9292, critical = 0.922. Kappa = 1.744 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Calcium Analysis Run 9/26/2024 11:46 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Within Limit

Prediction Limit
Interwell Non-parametric



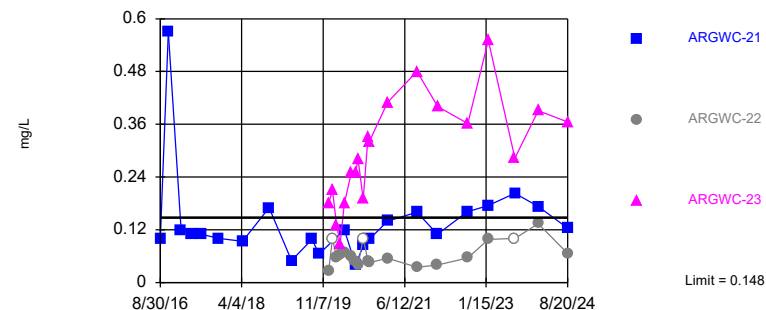
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 68 background values. Annual per-constituent alpha = 0.002497. Individual comparison alpha = 0.0004166 (1 of 2). Comparing 3 points to limit.

Constituent: Chloride Analysis Run 9/26/2024 11:46 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Hollow symbols indicate censored values.

Exceeds Limit: ARGWC-23

Prediction Limit
Interwell Non-parametric



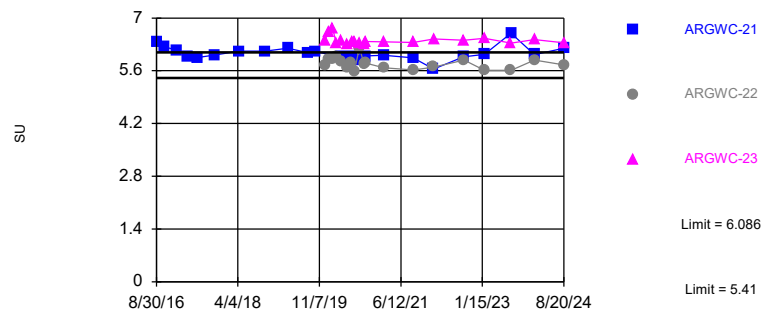
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 46 background values. 41.3% NDs. Annual per-constituent alpha = 0.005426. Individual comparison alpha = 0.0009064 (1 of 2). Comparing 3 points to limit.

Constituent: Fluoride Analysis Run 9/26/2024 11:46 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Exceeds Limits: ARGWC-21, ARGWC-23

Prediction Limit

Interwell Parametric



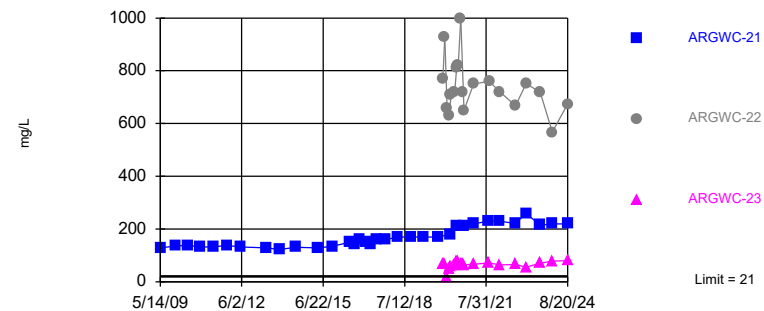
Background Data Summary: Mean=5.748, Std. Dev.=0.1948, n=45. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9722, critical = 0.926. Kappa = 1.736 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001253. Comparing 3 points to limit.

Constituent: pH Analysis Run 9/26/2024 11:46 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Exceeds Limit: ARGWC-21, ARGWC-22,
ARGWC-23

Prediction Limit

Interwell Non-parametric



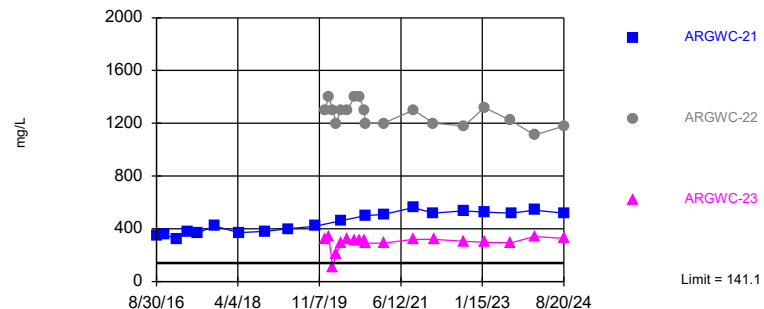
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 67 background values. Annual per-constituent alpha = 0.002578. Individual comparison alpha = 0.0004301 (1 of 2). Comparing 3 points to limit.

Constituent: Sulfate Analysis Run 9/26/2024 11:47 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Exceeds Limit: ARGWC-21, ARGWC-22,
ARGWC-23

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=104.7, Std. Dev.=20.82, n=40. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9558, critical = 0.919. Kappa = 1.75 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Total Dissolved Solids Analysis Run 9/26/2024 11:47 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23
8/29/2016	0.024 (J)	<0.08			
8/30/2016			0.57		
10/24/2016	0.0339 (J)	0.0194 (J)			
10/26/2016			0.502		
1/25/2017	0.048 (J)	0.026 (J)	0.56		
4/10/2017	0.022 (J)	<0.08	0.54		
6/19/2017	<0.08		0.54		
6/20/2017		0.032 (J)			
10/24/2017	0.021 (J)	0.054	0.57		
4/9/2018		0.06			
4/10/2018	0.022 (J)		0.61		
10/16/2018	<0.08	0.036 (J)	0.59		
3/26/2019	<0.08				
3/27/2019		0.046 (J)	0.65		
10/7/2019	<0.08	<0.08			
10/8/2019			0.58		
12/16/2019				2.7	0.42
1/14/2020				2.7	0.43
2/11/2020				3	0.079 (J)
3/9/2020				2.7	0.25
4/6/2020		0.063 (J)			
4/7/2020	0.072 (J)		0.74	2.6	0.44
5/27/2020				2.5	0.45
6/24/2020				2.5	
6/25/2020	0.091	0.081	0.82		0.42
7/15/2020				2.6	0.49
8/19/2020				1.3	
8/20/2020					0.44
9/22/2020				2.8	0.5
9/29/2020	<0.08				
9/30/2020		0.083		2.9	
10/1/2020			0.9		0.49
2/9/2021	<0.08	0.059 (J)			
2/10/2021			0.81	2.5	0.42
9/7/2021	<0.08				
9/8/2021		0.064 (J)	0.79		
9/9/2021					0.41
9/10/2021				2.7	
2/1/2022	0.092	<0.08	0.85		
2/2/2022				2.4	
2/3/2022					0.49
9/1/2022	0.0238		0.921		
9/2/2022		0.0597			
9/6/2022				2.78	0.458
1/31/2023	0.0234		1.06	2.77	0.459
2/1/2023		0.0816			
8/8/2023	0.0199			3.06	0.379
8/9/2023			1.12		
8/10/2023		0.0714			
1/23/2024	0.0214	0.0685		4.52	
1/24/2024			1.13		0.456
8/20/2024	0.0236	0.0537	1.13	3.09	0.434

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWA-20 (bg)	ARGWC-21	ARGWC-22	ARGWC-23
8/29/2016	11	8.3			
8/30/2016			46		
10/24/2016	11.5	7.66			
10/26/2016			44.3		
1/25/2017	13	9.4	50		
4/10/2017	11	8.6	52		
6/19/2017	12		55		
6/20/2017		9.4			
10/24/2017	12	9.9	56		
4/9/2018		9.9			
4/10/2018	12		51		
10/16/2018	14	9.8	57		
3/26/2019	15				
3/27/2019		9.2	58		
10/7/2019	14	8.9			
10/8/2019			60		
12/16/2019				200	69
1/14/2020				210	65
2/11/2020				180	10
3/9/2020				180	46
4/6/2020		9.5			
4/7/2020	14		69	190	65
5/27/2020				200	69
6/24/2020				180	
6/25/2020	14	9.6	80		72
7/15/2020				190	68
8/19/2020				220	
8/20/2020					69
9/22/2020				190	66
9/29/2020	12				
9/30/2020		9.9		200	
10/1/2020			79		73
2/9/2021	9.7	9.2			
2/10/2021			76	200	67
9/7/2021	9.2				
9/8/2021		11	81		
9/9/2021					70
9/10/2021				200	
2/1/2022	8	8.3	75		
2/2/2022				190	
2/3/2022					71
9/1/2022	8.52		71.5		
9/2/2022		9.48			
9/6/2022				162	65.2
1/31/2023	8.5		79.1	207	69.9
2/1/2023		10.8			
8/8/2023	8.51			196	66.6
8/9/2023			82.9		
8/10/2023		11			
1/23/2024	9.34	11.4		183	
1/24/2024			82.6		75.6
8/20/2024	8.29	10.6	78	194	79.6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
5/5/2009	11.1				
5/14/2009		6.38			
5/15/2009			6.86		
12/5/2009	9.46	6.28	5.06		
6/1/2010	6.32		5.47		
6/2/2010		6.1			
11/11/2010	7.16	6.1461	5.26		
5/17/2011	6.84	6.17	4.8		
11/8/2011	9.13	6.6	5.62		
5/16/2012	10.8	6.18	5.1		
5/14/2013	16.2	6.32	5.25		
11/5/2013	14.8	5.65	5.19		
6/9/2014	13.6	6.08	5.55		
4/14/2015	10.4	5.43	5.39		
10/29/2015		5.62			
11/4/2015	9.19		5.38		
6/22/2016	8.4		5.7		
6/23/2016		5.9			
8/29/2016	8.4		5.3		
8/30/2016		5.5			
10/24/2016	9.6		5.4		
10/26/2016		6			
1/25/2017	8.7	5.4	5.1		
4/10/2017	8	5.1	4.9		
6/19/2017	7.6	5.2			
6/20/2017			5		
10/24/2017	7.2	4.9	4.6		
4/9/2018			4.7		
4/10/2018	7.2	4.8			
10/16/2018	10	5.1	5.3		
3/26/2019	12				
3/27/2019		4.4	4.6		
10/7/2019	11		5.2		
10/8/2019		4.5			
12/16/2019				3.9	5.8
1/14/2020				4	5.5
2/11/2020				4.7	9
3/9/2020				3.7	11
4/6/2020			5.2		
4/7/2020	11	4.2		3.8	8.1
5/27/2020				4	7.3
6/24/2020					5.7
6/25/2020	11	3.7	5.1	3.4	
7/15/2020				3.9	6
8/19/2020					5.7
8/20/2020				3.9	
9/22/2020				3.6	7.1
9/29/2020	10				
9/30/2020			5.6		8
10/1/2020		4.3		3.8	
2/9/2021	8.6		6		
2/10/2021		4.3		4.6	7.4

Prediction Limit

Page 2

Constituent: Chloride (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
9/7/2021	7.4				
9/8/2021		4	5.9		
9/9/2021				4.7	
9/10/2021					6.7
2/1/2022	6.8	3.4	5.7		
2/2/2022					6.3
2/3/2022				4.4	
9/1/2022	6.27	3.34			
9/2/2022			5.44		
9/6/2022				3.73	8.34
1/31/2023	6.04	3.3		3.84	5.88
2/1/2023			6		
8/8/2023	6.37			3.6	6.79
8/9/2023		3.35			
8/10/2023			6.5		
1/23/2024	5.63		6.68		7.31
1/24/2024		3.35		3.74	
8/20/2024	4.89	3.18	7.63	3.68	7.25

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWA-20 (bg)	ARGWC-21	ARGWC-23	ARGWC-22
8/29/2016	<0.1	<0.1			
8/30/2016			0.099 (J)		
10/24/2016	0.07 (J)	0.04 (J)			
10/26/2016			0.57		
1/25/2017	<0.1	<0.1	0.12 (J)		
4/10/2017	<0.1	<0.1	0.11 (J)		
6/19/2017	<0.1		0.11 (J)		
6/20/2017		<0.1			
10/24/2017	<0.1	<0.1	0.1 (J)		
4/9/2018		<0.1			
4/10/2018	<0.1		0.094 (J)		
10/16/2018	0.083 (J)	<0.1	0.17 (J)		
3/26/2019	0.041 (J)				
3/27/2019		<0.1	0.05 (J)		
8/20/2019	0.045 (J)	0.042 (J)	0.098 (J)		
10/7/2019	0.049 (J)	0.036 (J)			
10/8/2019			0.065 (J)		
12/16/2019				0.18 (J)	0.026 (J)
1/14/2020				0.21	<0.1
2/11/2020				0.13	0.056
3/9/2020				0.089 (J)	0.064 (J)
4/6/2020		0.059 (J)			
4/7/2020	0.14		0.12	0.18	0.068 (J)
5/27/2020				0.25	0.06 (J)
6/24/2020					0.048 (J)
6/25/2020	0.03 (J)	<0.1	0.041 (J)	0.25	
7/15/2020				0.28	0.04 (J)
8/19/2020	<0.1	<0.1			<0.1
8/20/2020				0.19	
8/21/2020			0.084 (J)		
9/22/2020				0.33	0.049 (J)
9/29/2020	0.051 (J)				
9/30/2020		0.032 (J)			0.045 (J)
10/1/2020			0.098 (J)	0.32	
2/9/2021	0.059 (J)	0.048 (J)			
2/10/2021			0.14	0.41	0.055 (J)
9/7/2021	0.1				
9/8/2021		0.067 (J)	0.16		
9/9/2021				0.48	
9/10/2021					0.035 (J)
2/1/2022	0.076 (J)	0.028 (J)	0.11		
2/2/2022					0.04 (J)
2/3/2022				0.4	
9/1/2022	0.148		0.161		
9/2/2022		0.122			
9/6/2022				0.362	0.056 (J)
1/31/2023	0.108 (J)		0.175 (J)	0.551 (J)	0.0979 (J)
2/1/2023		0.121			
8/8/2023	<0.1			0.283	<0.1
8/9/2023			0.203		
8/10/2023		<0.1			
1/23/2024	0.121	0.113			0.134

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWA-20 (bg)	ARGWC-21	ARGWC-23	ARGWC-22
1/24/2024			0.173	0.391	
8/20/2024	0.0679 (J)	0.0488 (J)	0.124	0.365	0.066 (J)

Prediction Limit

Constituent: pH (SU) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWA-19 (bg)	ARGWC-23	ARGWC-22
8/29/2016	5.64		6.75 (o)		
8/30/2016		6.38			
10/24/2016	5.6		5.81		
10/26/2016		6.23			
1/25/2017	5.65	6.15	5.91		
4/10/2017	5.42	5.99	5.74		
6/19/2017		5.95	5.54		
6/20/2017	5.59				
10/24/2017	5.58	6.02	5.82		
4/9/2018	5.78				
4/10/2018		6.12	5.92		
10/16/2018	5.69	6.12	5.94		
3/26/2019			5.85		
3/27/2019	5.96	6.2			
8/20/2019	5.57	6.08	5.9		
10/7/2019	5.65		5.89		
10/8/2019		6.11			
12/16/2019				6.41	5.74
1/14/2020				6.62	5.91
2/11/2020				6.71	5.9
3/9/2020				6.32	5.97
4/6/2020	5.53				
4/7/2020		5.96	5.72	6.4	5.84
5/27/2020				6.3	5.69
6/24/2020					5.82
6/25/2020	5.61	5.98	5.8	6.37	
7/15/2020				6.36	5.58
8/19/2020	6.16		6.25		6.21
8/20/2020				6.33	
8/21/2020		5.89			
9/22/2020				6.29	5.77
9/29/2020			5.83		
9/30/2020	5.65				5.81
10/1/2020		5.99		6.38	
2/9/2021	5.66		5.97		
2/10/2021		6.01		6.37	5.68
9/7/2021			5.85		
9/8/2021	5.59	5.94			
9/9/2021				6.35	
9/10/2021					5.62
2/1/2022	5.14	5.65	5.52		
2/2/2022					5.7
2/3/2022				6.44	
9/1/2022		5.97	5.88		
9/2/2022	5.68				
9/6/2022				6.41	5.88
1/31/2023		6.04	5.86	6.46	5.61
2/1/2023	5.7				
8/8/2023			5.81	6.33	5.61
8/9/2023		6.6			
8/10/2023	5.55				
1/23/2024	5.77		5.93		5.88

Prediction Limit

Constituent: pH (SU) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-20 (bg)	ARGWC-21	ARGWA-19 (bg)	ARGWC-23	ARGWC-22
1/24/2024		6.03		6.43	
8/20/2024	5.83	6.2	5.93	6.34	5.76

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
5/5/2009	15.9				
5/14/2009		129			
5/15/2009			41.3 (o)		
12/5/2009	15.1	136	16.2		
6/1/2010	12.7		18.2		
6/2/2010		138			
11/11/2010	11.5	131.49	16.5		
5/17/2011	11.2	132	16		
11/8/2011	11.3	138	21		
5/16/2012	9.38	132	17.7		
5/14/2013	8.74	129	19.5		
11/5/2013	9.12	122	18.3		
6/9/2014	8.61	131	18.6		
4/14/2015	8.45	128	18.8		
10/29/2015		134			
11/4/2015	9.01		17.4		
6/22/2016	9.3		18		
6/23/2016		150			
8/29/2016	8.7		18		
8/30/2016		140			
10/24/2016	9.3		18		
10/26/2016		160			
1/25/2017	8.8	150	19		
4/10/2017	7.8	140	16		
6/19/2017	8.6	160			
6/20/2017			18		
10/24/2017	9.1	160	19		
4/9/2018			18		
4/10/2018	7.9	170			
10/16/2018	8.2	170	18		
3/26/2019	6.1				
3/27/2019		170	15		
10/7/2019	7.4		17		
10/8/2019		170			
12/16/2019				66	770
1/14/2020				68	930
2/11/2020				18	660
3/9/2020				49	630
4/6/2020			15		
4/7/2020	8.4	180		58	710
5/27/2020				65	720
6/24/2020					810
6/25/2020	9.8	210	16	77	
7/15/2020				78	820
8/19/2020					1000
8/20/2020				69	
9/22/2020				68	720
9/29/2020	8.4				
9/30/2020			15		650
10/1/2020		210		64	
2/9/2021	10		16		
2/10/2021		220		67	750

Prediction Limit

Page 2

Constituent: Sulfate (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWC-21	ARGWA-20 (bg)	ARGWC-23	ARGWC-22
9/7/2021	9.9				
9/8/2021		230	16		
9/9/2021				72	
9/10/2021					760
2/1/2022	10	230	18		
2/2/2022					720
2/3/2022				64	
9/1/2022	8.38	221			
9/2/2022			18.5		
9/6/2022				65.3	667
1/31/2023	7.55	260		55.5	751
2/1/2023			19.3		
8/8/2023	8.29			69.8	719
8/9/2023		214			
8/10/2023			18.5		
1/23/2024	6.98		17.1		567
1/24/2024		219		78.4	
8/20/2024	7.07	219	16.4	80.1	674

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/26/2024 11:48 AM View: Appendix III - Interwell

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWA-19 (bg)	ARGWA-20 (bg)	ARGWC-21	ARGWC-23	ARGWC-22
8/29/2016	130	100			
8/30/2016			350		
10/24/2016	108	91			
10/26/2016			357		
1/25/2017	120	90	320		
4/10/2017	128 (D)	110	380		
6/19/2017	86		370		
6/20/2017		72			
10/24/2017	120	110	420		
4/9/2018		100			
4/10/2018	120		370		
10/16/2018	140	110	380		
3/26/2019	170				
3/27/2019		100	400		
10/7/2019	150	87			
10/8/2019			420		
12/16/2019				320	1300
1/14/2020				340	1400
2/11/2020				110	1300
3/9/2020				210	1200
4/6/2020		90			
4/7/2020	120		460	290	1300
5/27/2020				320	1300
7/15/2020				310	1400
8/19/2020					1400
8/20/2020				310	
9/22/2020				310	1300
9/29/2020	110				
9/30/2020		82			1200
10/1/2020			500	290	
2/9/2021	110	100			
2/10/2021			510	290	1200
9/7/2021	110				
9/8/2021		120	560		
9/9/2021				320	
9/10/2021					1300
2/1/2022	91	100	520		
2/2/2022					1200
2/3/2022				320	
9/1/2022	81		537		
9/2/2022		101			
9/6/2022				305	1180
1/31/2023	95		526	299	1320
2/1/2023		90			
8/8/2023	62			294	1220
8/9/2023			520		
8/10/2023		105			
1/23/2024	82	92			1110
1/24/2024			541	342	
8/20/2024	91	113	520	328	1180

FIGURE F.

Appendix III Trend Test - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:53 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	ARGWC-21	0.07619	175	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWA-20 (bg)	0.2776	95	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWC-21	4.91	160	87	Yes	21	0	0.01	NP
Fluoride (mg/L)	ARGWC-23	0.08957	105	74	Yes	19	0	0.01	NP
Sulfate (mg/L)	ARGWA-19 (bg)	-0.2378	-276	-176	Yes	34	0	0.01	NP
Sulfate (mg/L)	ARGWC-21	8.192	422	176	Yes	34	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWA-19 (bg)	-5.289	-84	-81	Yes	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-21	27.93	146	81	Yes	20	0	0.01	NP

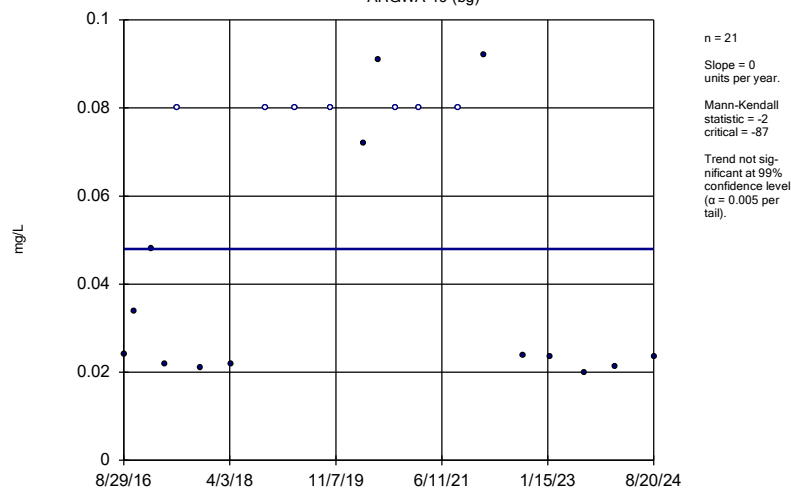
Appendix III Trend Test - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 11:53 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	ARGWA-19 (bg)	0	-2	-87	No	21	33.33	0.01	NP
Boron (mg/L)	ARGWA-20 (bg)	0.003024	58	87	No	21	19.05	0.01	NP
Boron (mg/L)	ARGWC-21	0.07619	175	87	Yes	21	0	0.01	NP
Boron (mg/L)	ARGWC-22	0.07412	41	74	No	19	0	0.01	NP
Boron (mg/L)	ARGWC-23	0.007449	32	74	No	19	0	0.01	NP
Calcium (mg/L)	ARGWA-19 (bg)	-0.4657	-75	-87	No	21	0	0.01	NP
Calcium (mg/L)	ARGWA-20 (bg)	0.2776	95	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWC-21	4.91	160	87	Yes	21	0	0.01	NP
Calcium (mg/L)	ARGWC-22	0	-2	-74	No	19	0	0.01	NP
Calcium (mg/L)	ARGWC-23	2.173	69	74	No	19	0	0.01	NP
Fluoride (mg/L)	ARGWA-19 (bg)	0	21	98	No	23	34.78	0.01	NP
Fluoride (mg/L)	ARGWA-20 (bg)	0	-2	-98	No	23	47.83	0.01	NP
Fluoride (mg/L)	ARGWC-23	0.08957	105	74	Yes	19	0	0.01	NP
pH (SU)	ARGWA-19 (bg)	0.008207	32	92	No	22	0	0.01	NP
pH (SU)	ARGWA-20 (bg)	0.0127	41	98	No	23	0	0.01	NP
pH (SU)	ARGWC-21	-0.01714	-50	-98	No	23	0	0.01	NP
pH (SU)	ARGWC-23	-0.005069	-8	-74	No	19	0	0.01	NP
Sulfate (mg/L)	ARGWA-19 (bg)	-0.2378	-276	-176	Yes	34	0	0.01	NP
Sulfate (mg/L)	ARGWA-20 (bg)	-0.03643	-70	-167	No	33	0	0.01	NP
Sulfate (mg/L)	ARGWC-21	8.192	422	176	Yes	34	0	0.01	NP
Sulfate (mg/L)	ARGWC-22	-17.79	-32	-74	No	19	0	0.01	NP
Sulfate (mg/L)	ARGWC-23	2.748	49	74	No	19	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWA-19 (bg)	-5.289	-84	-81	Yes	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWA-20 (bg)	0.2883	24	81	No	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-21	27.93	146	81	Yes	20	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-22	-27.81	-60	-68	No	18	0	0.01	NP
Total Dissolved Solids (mg/L)	ARGWC-23	1.889	23	68	No	18	0	0.01	NP

Sen's Slope Estimator

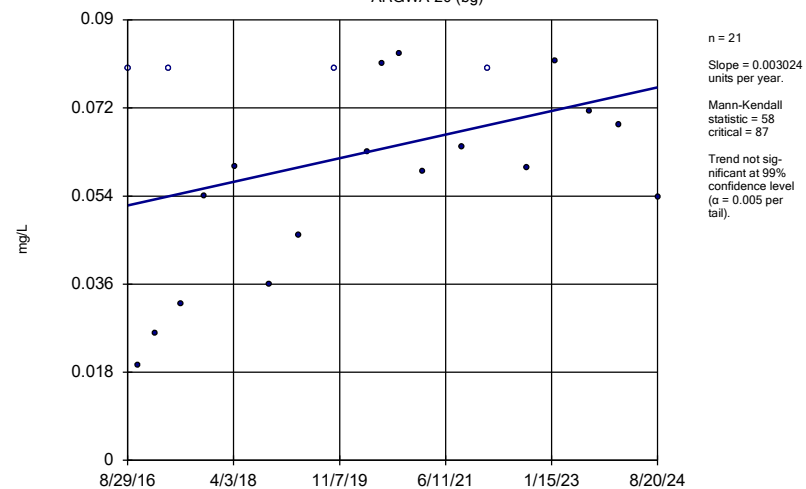
ARGWA-19 (bg)



Constituent: Boron Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

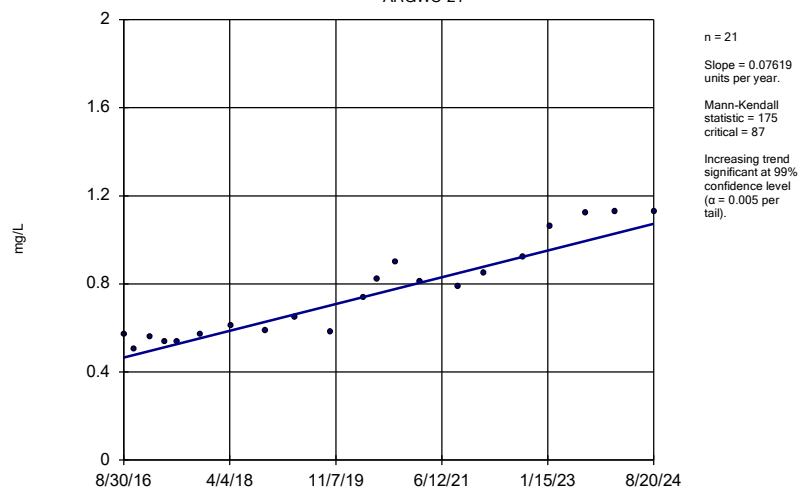
ARGWA-20 (bg)



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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

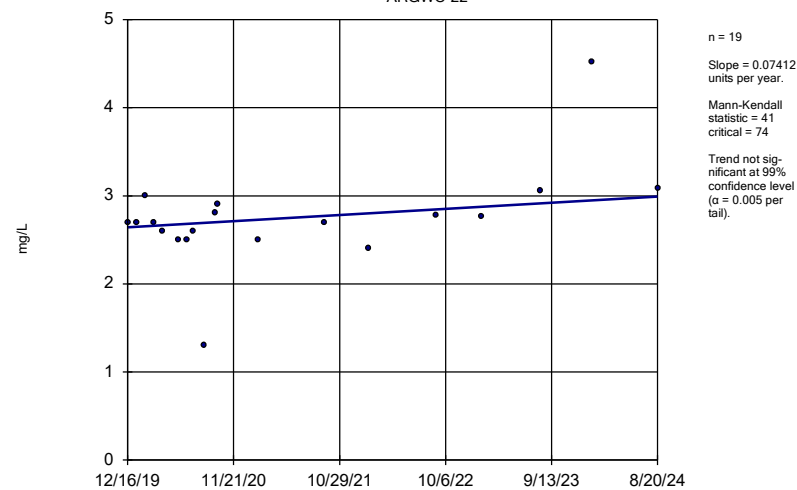
ARGWC-21



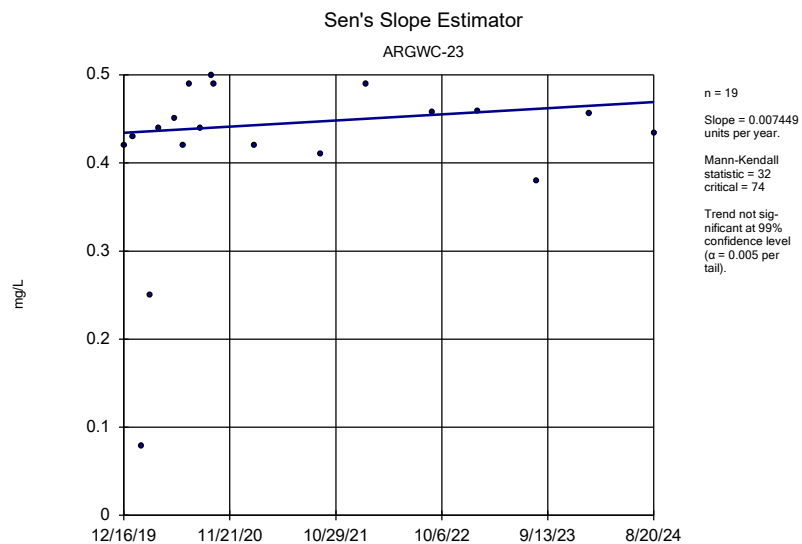
Constituent: Boron Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

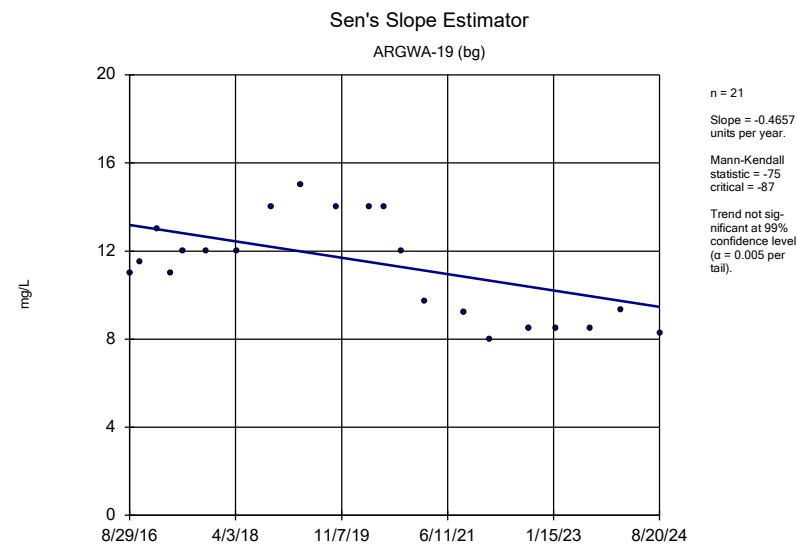
ARGWC-22



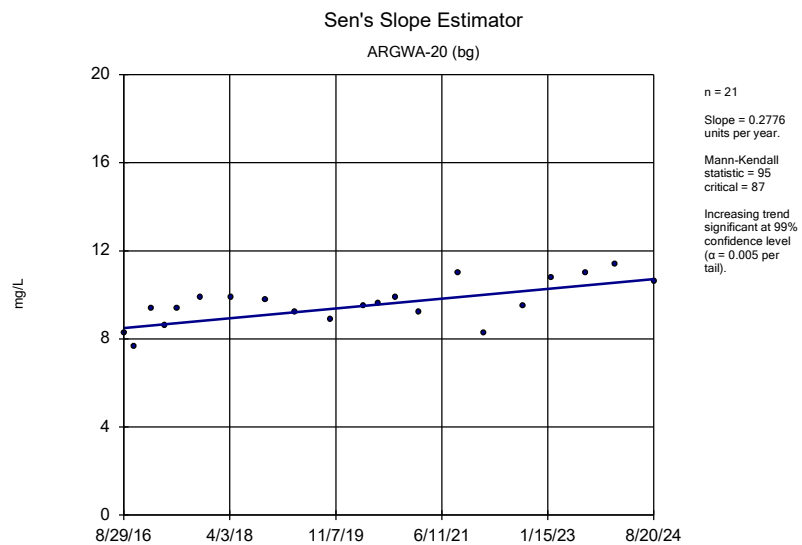
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Plant Arkwright Client: Southern Company Data: Arkwright No 2



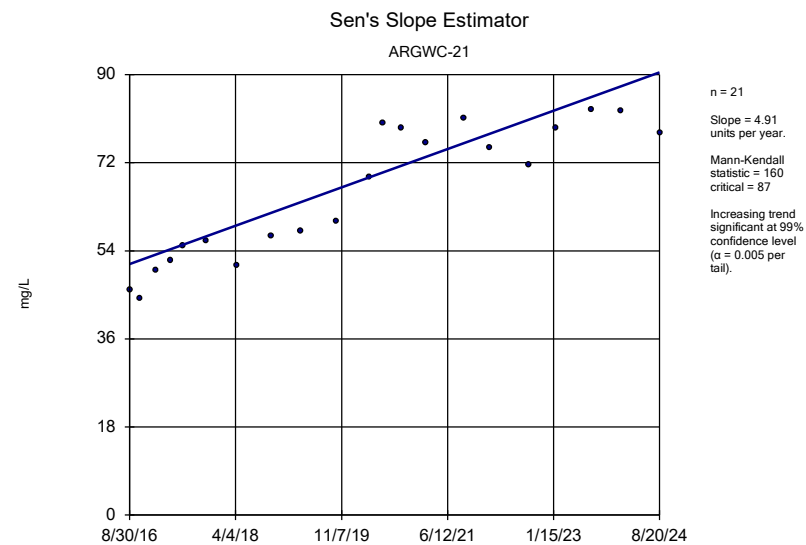
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Plant Arkwright Client: Southern Company Data: Arkwright No 2



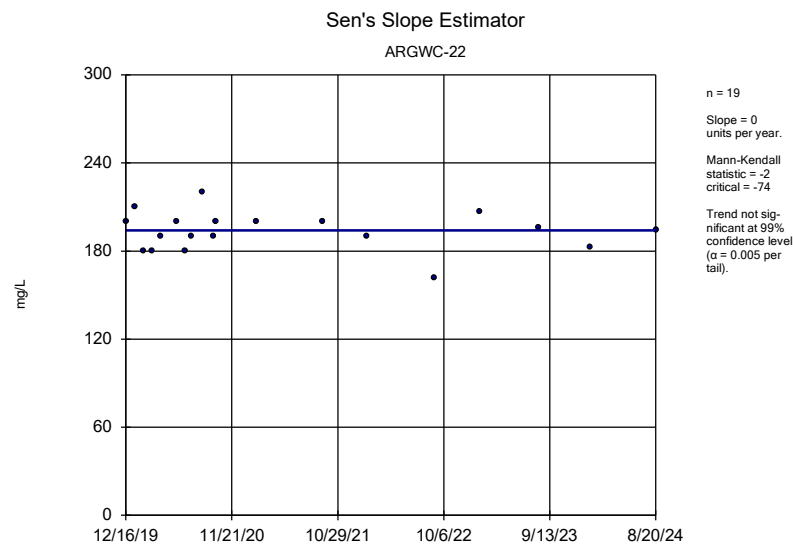
Constituent: Calcium Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2



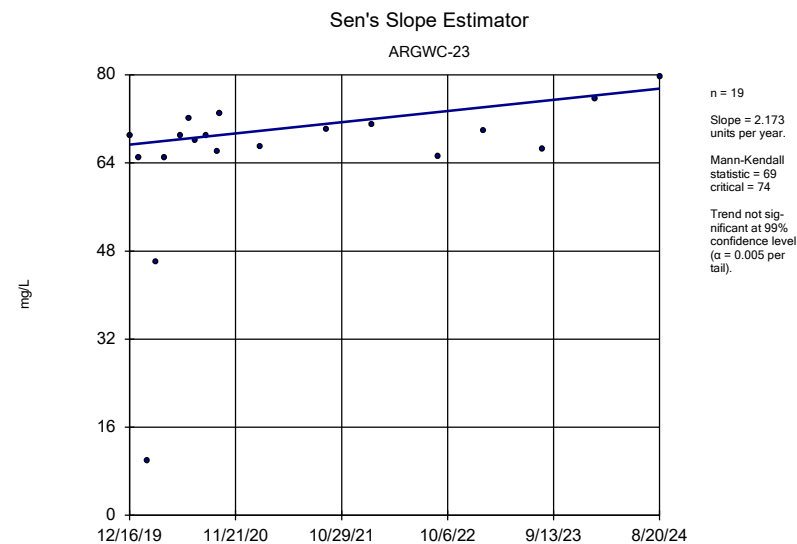
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Plant Arkwright Client: Southern Company Data: Arkwright No 2



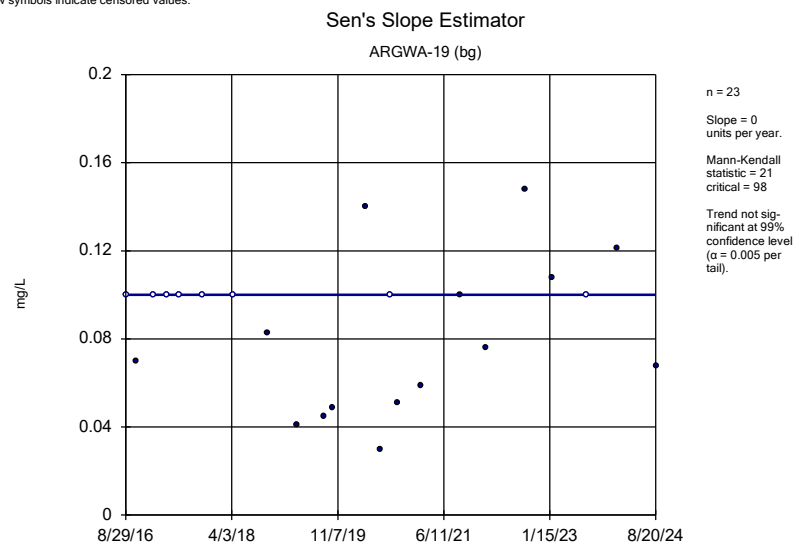
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Plant Arkwright Client: Southern Company Data: Arkwright No 2



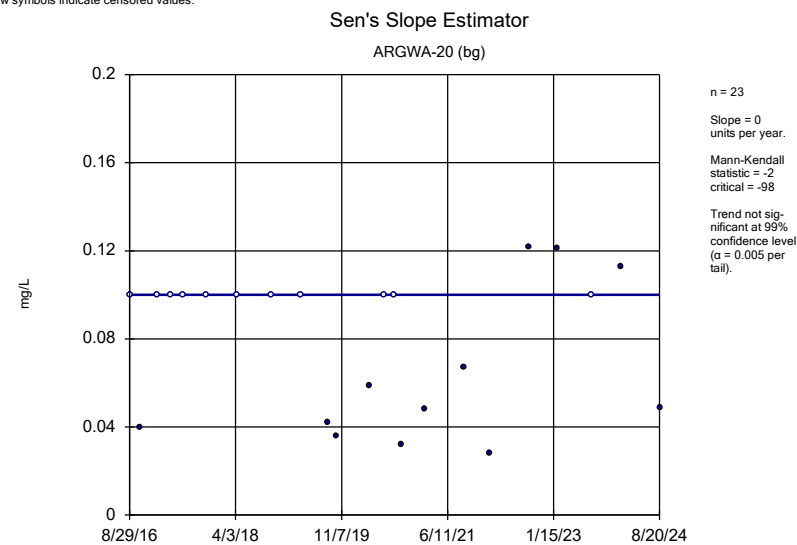
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Plant Arkwright Client: Southern Company Data: Arkwright No 2



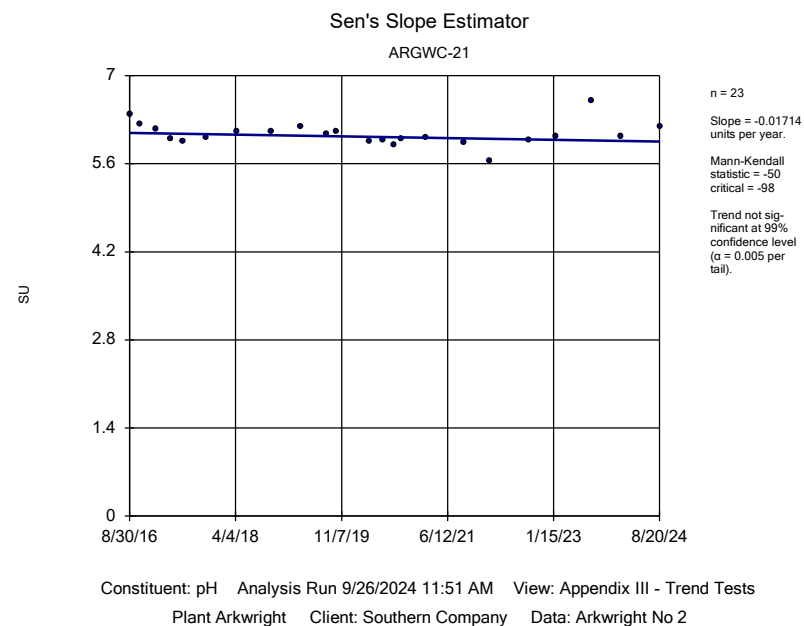
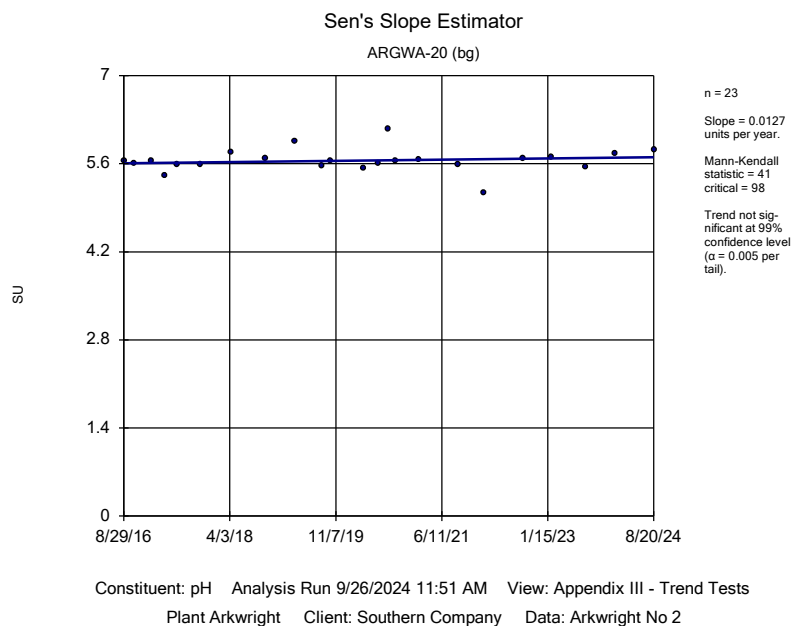
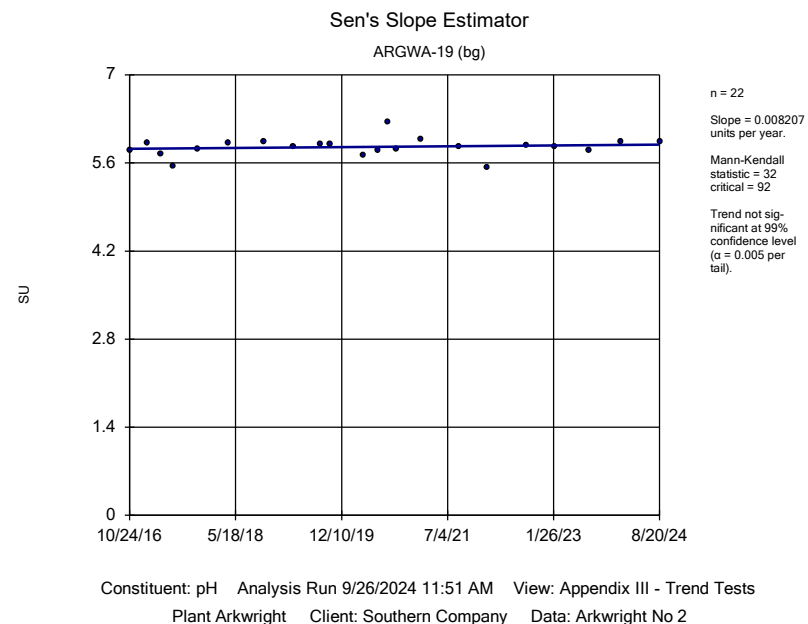
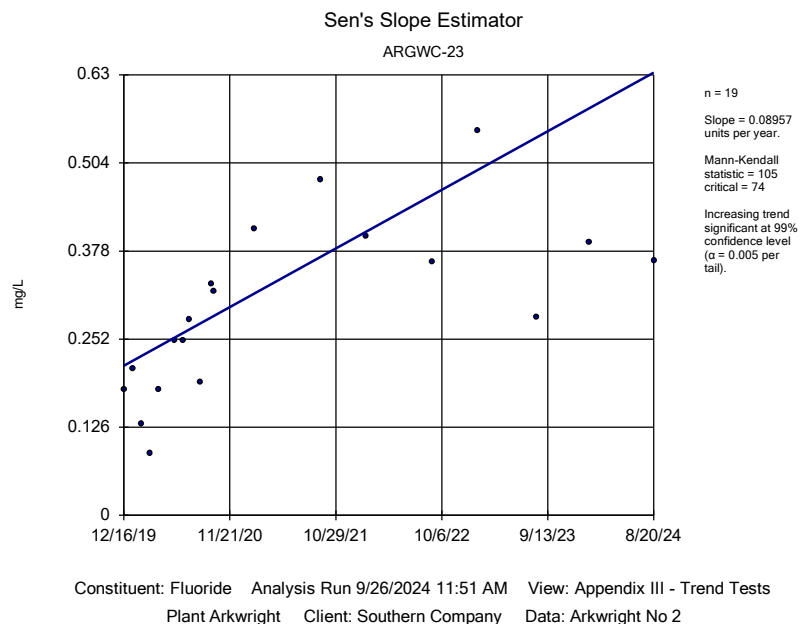
Constituent: Calcium Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

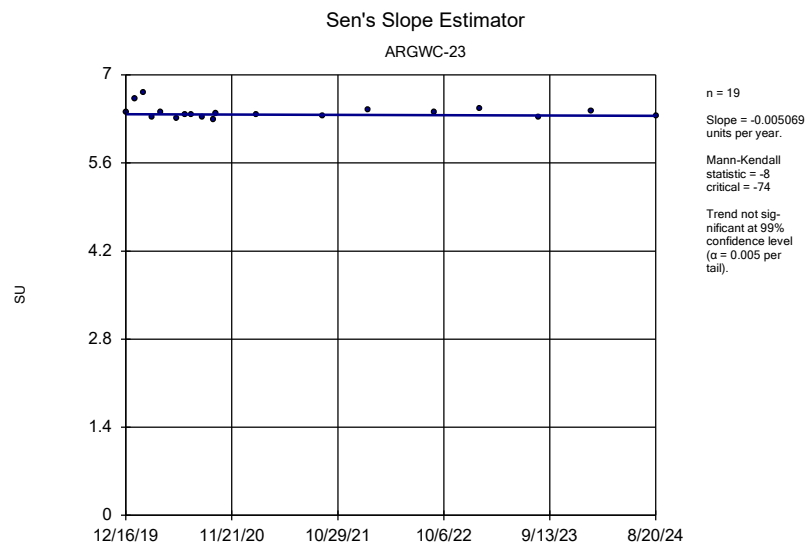


Constituent: Fluoride Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

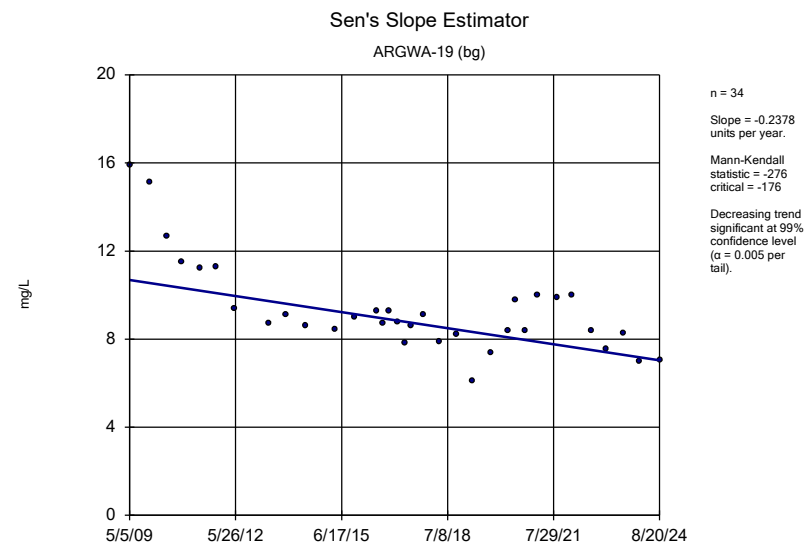


Constituent: Fluoride Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

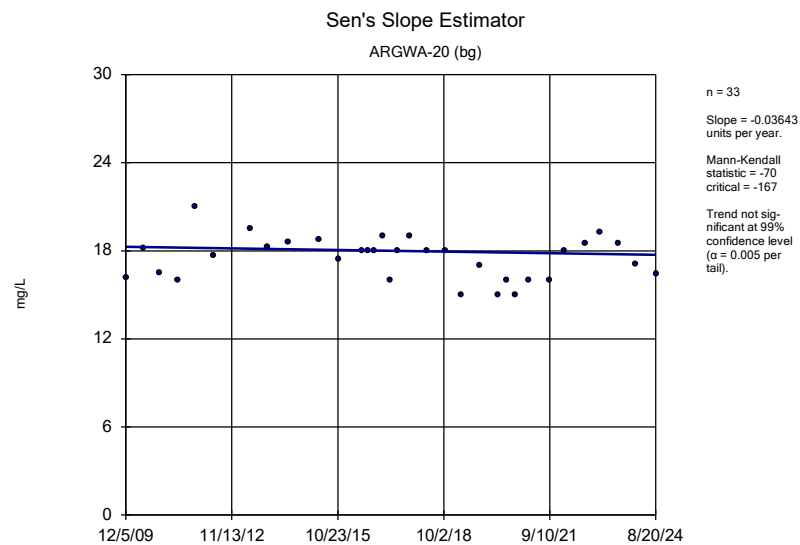




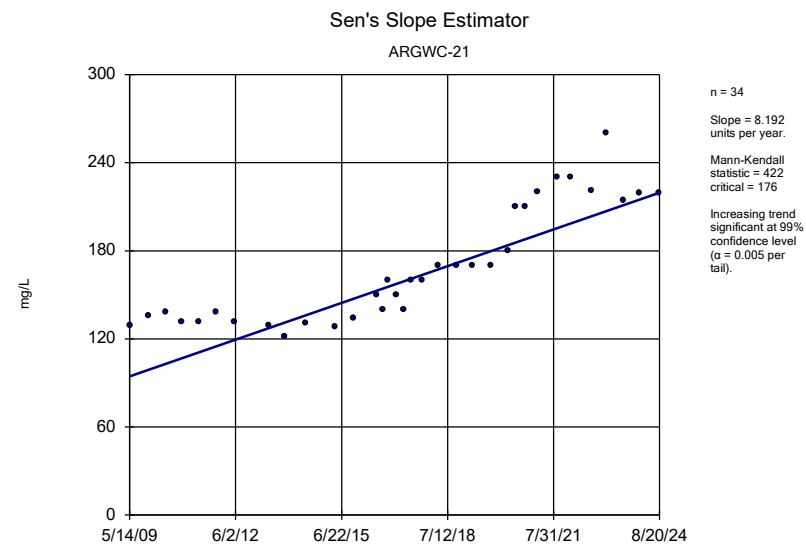
Constituent: pH Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2



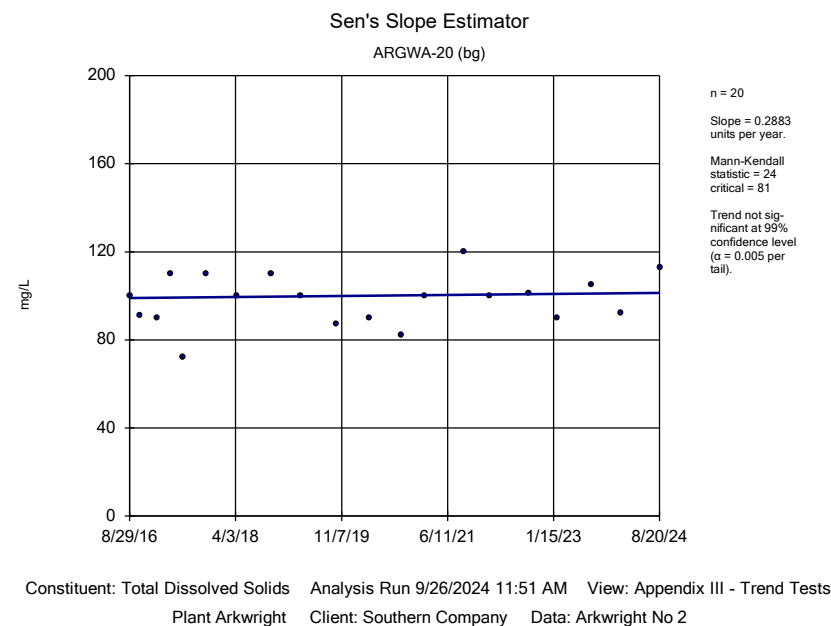
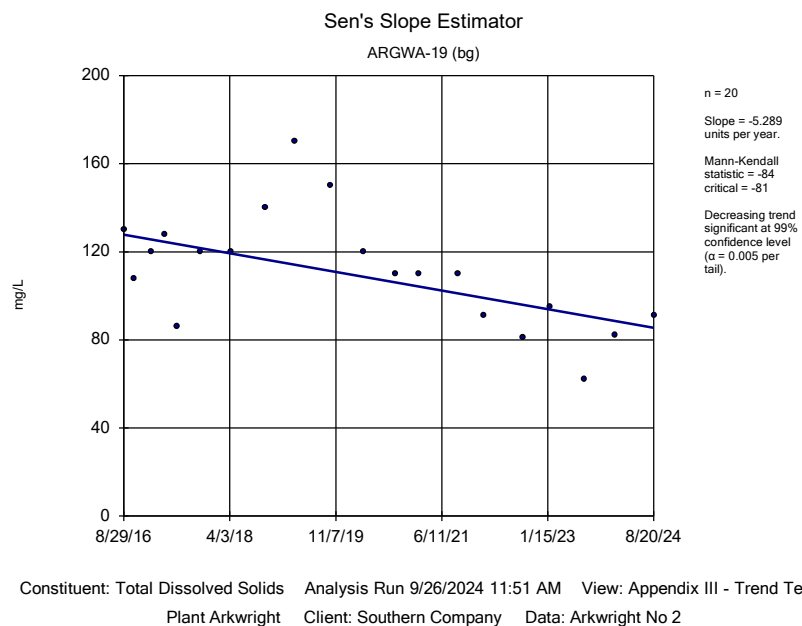
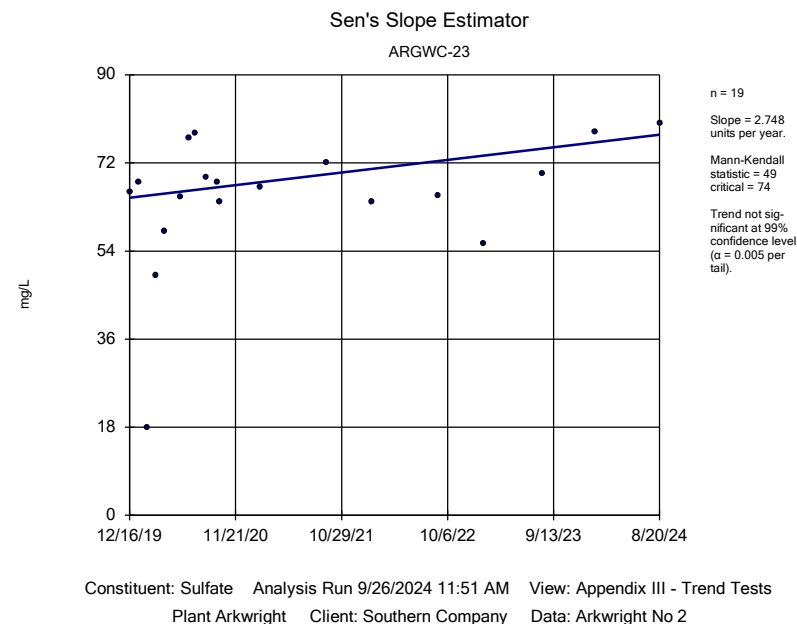
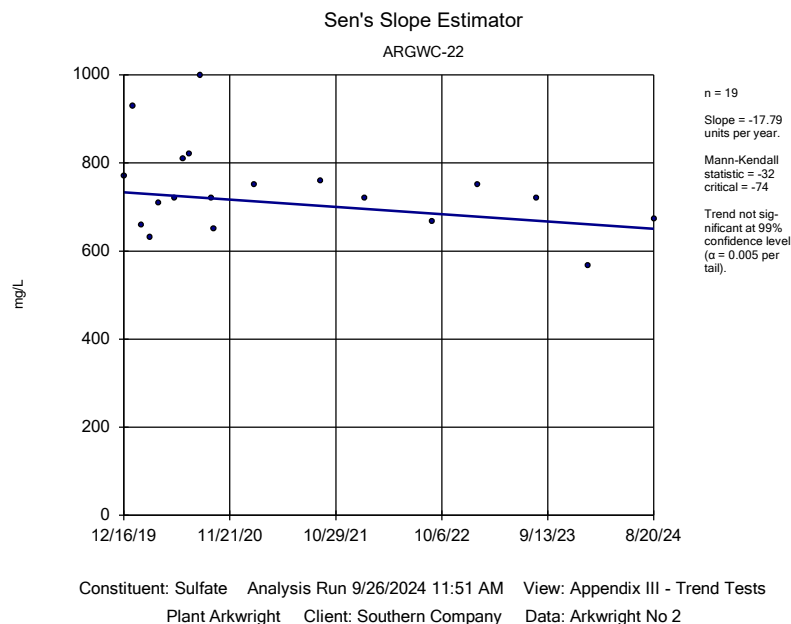
Constituent: Sulfate Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2



Constituent: Sulfate Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

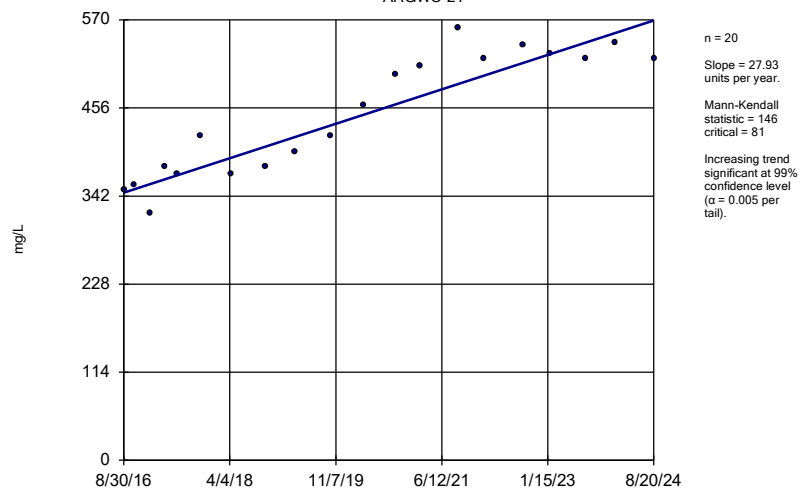


Constituent: Sulfate Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2



Sen's Slope Estimator

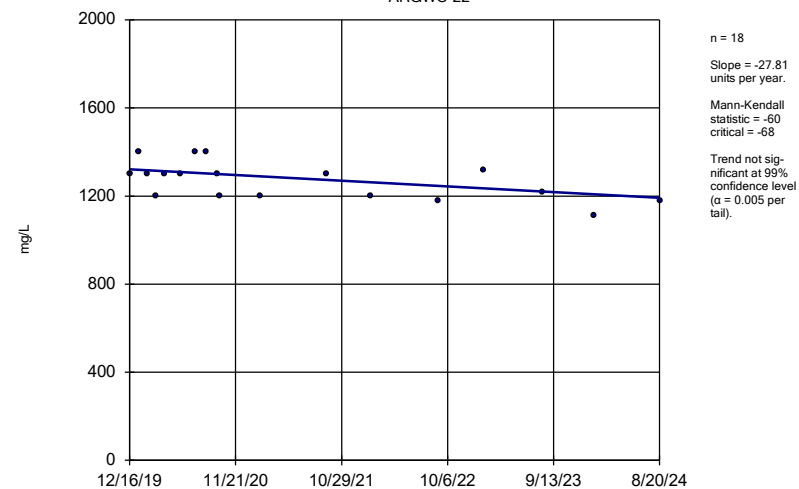
ARGWC-21



Constituent: Total Dissolved Solids Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

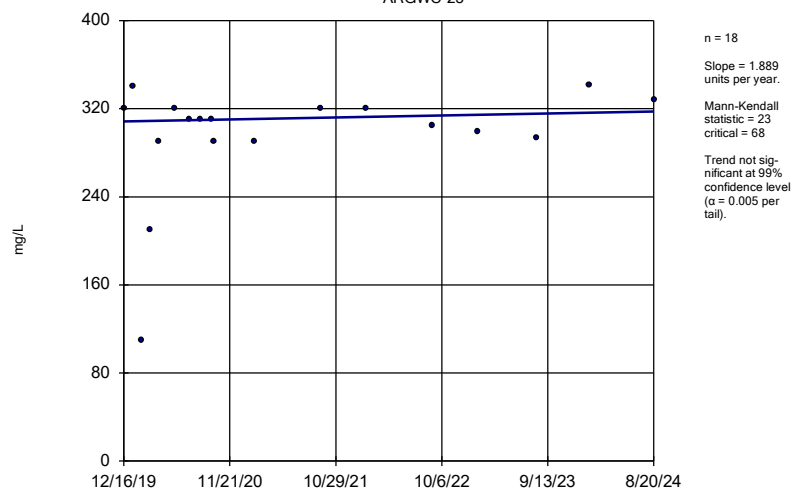
ARGWC-22



Constituent: Total Dissolved Solids Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

ARGWC-23



Constituent: Total Dissolved Solids Analysis Run 9/26/2024 11:51 AM View: Appendix III - Trend Tests
Plant Arkwright Client: Southern Company Data: Arkwright No 2

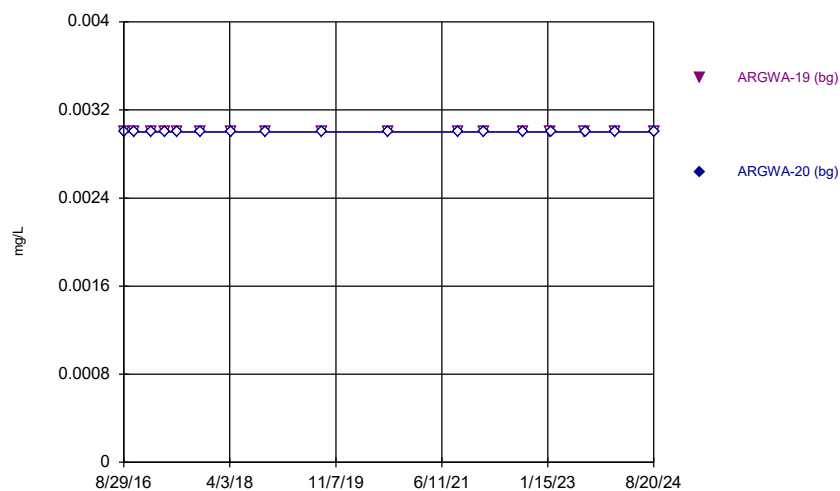
FIGURE G.

Upper Tolerance Limits

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/26/2024, 12:01 PM

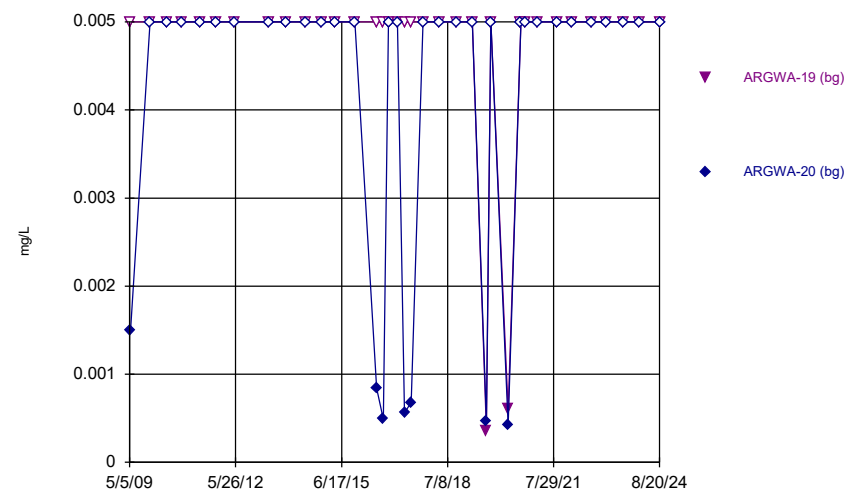
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	34	100	n/a	0.1748	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	72	87.5	n/a	0.02489	NP Inter(NDs)
Barium (mg/L)	n/a	0.107	n/a	n/a	n/a	72	0	n/a	0.02489	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	38	92.11	n/a	0.1424	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	70	98.57	n/a	0.02758	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	42	26.19	n/a	0.116	NP Inter(normality)
Cobalt (mg/L)	n/a	0.001	n/a	n/a	n/a	44	68.18	n/a	0.1047	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	2.65	n/a	n/a	n/a	42	2.381	n/a	0.116	NP Inter(normality)
Fluoride (mg/L)	n/a	0.148	n/a	n/a	n/a	46	41.3	n/a	0.09447	NP Inter(normality)
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	72	87.5	n/a	0.02489	NP Inter(NDs)
Lithium (mg/L)	n/a	0.013	n/a	n/a	n/a	44	43.18	n/a	0.1047	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	34	94.12	n/a	0.1748	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.001	n/a	n/a	n/a	40	82.5	n/a	0.1285	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	71	67.61	n/a	0.0262	NP Inter(NDs)
Silver (mg/L)	n/a	0.001	n/a	n/a	n/a	62	91.94	n/a	0.04158	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	34	97.06	n/a	0.1748	NP Inter(NDs)

Time Series



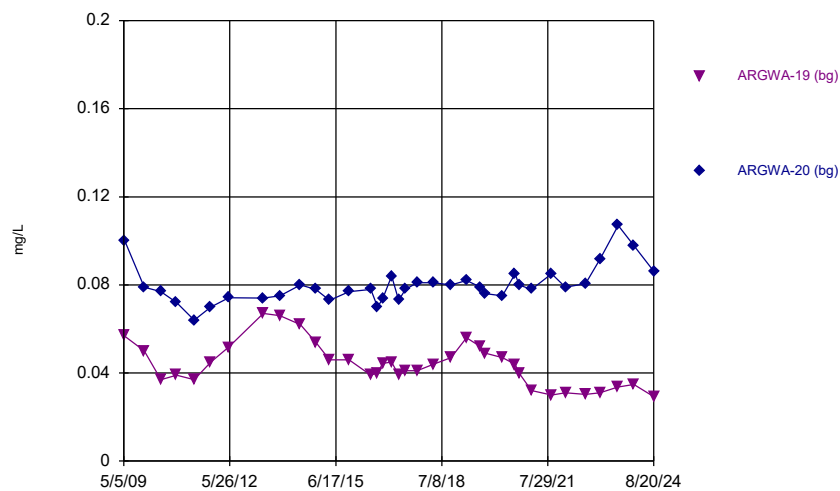
Constituent: Antimony Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



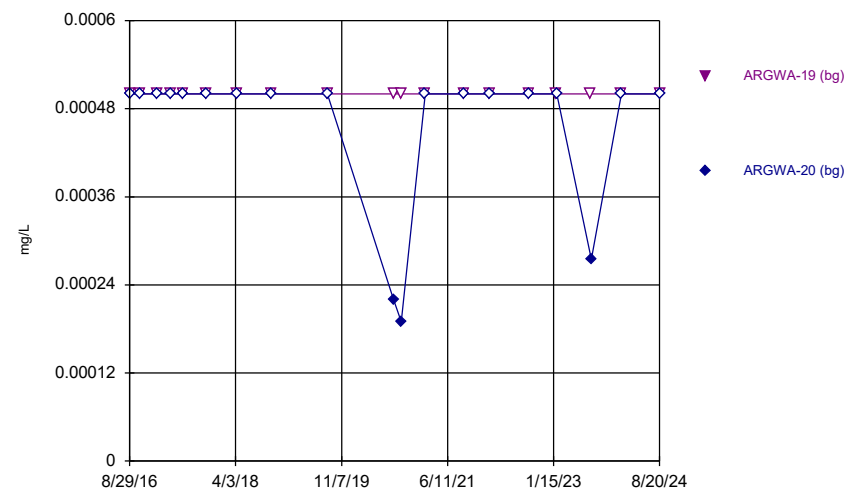
Constituent: Arsenic Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



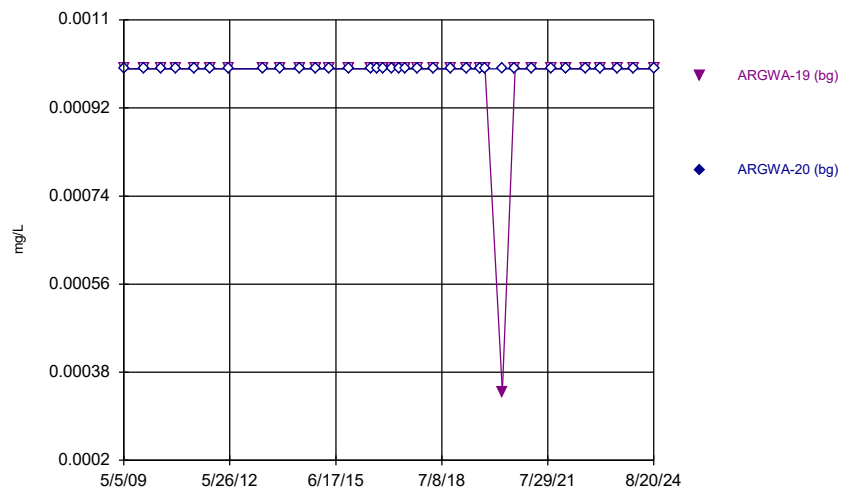
Constituent: Barium Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



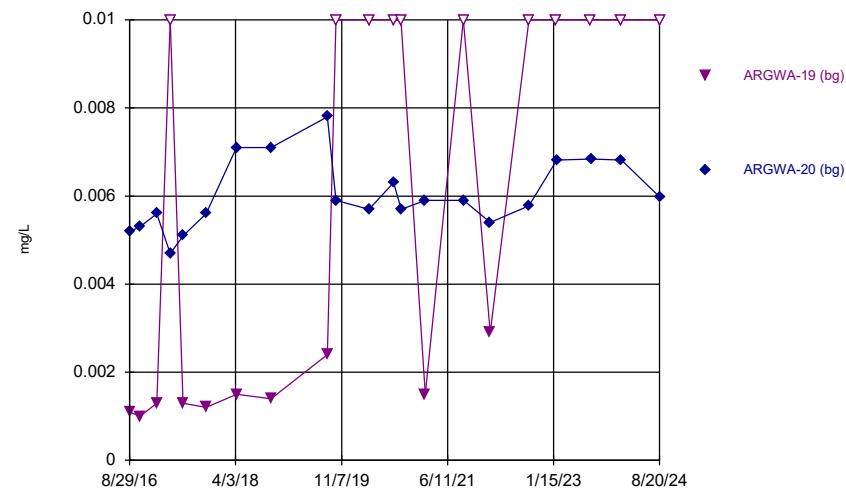
Constituent: Beryllium Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



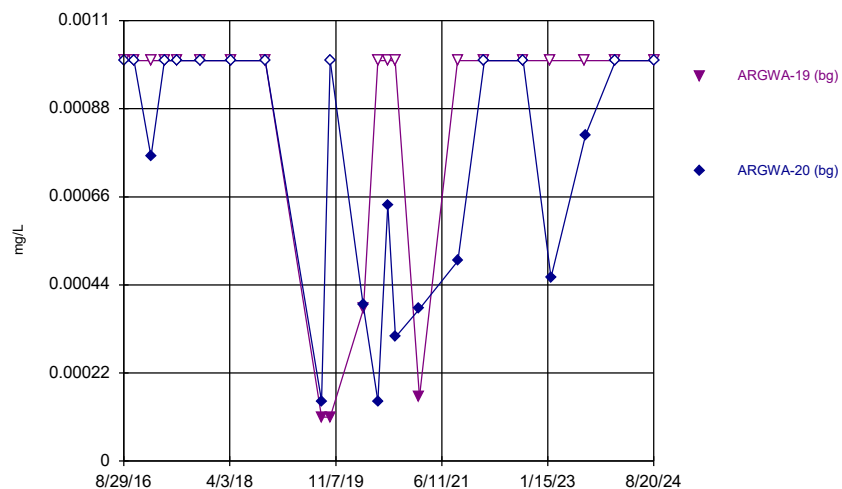
Constituent: Cadmium Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



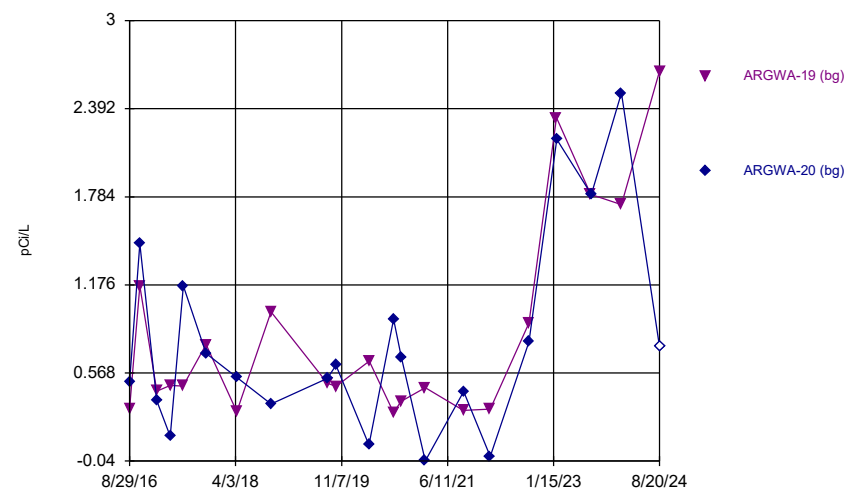
Constituent: Chromium Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



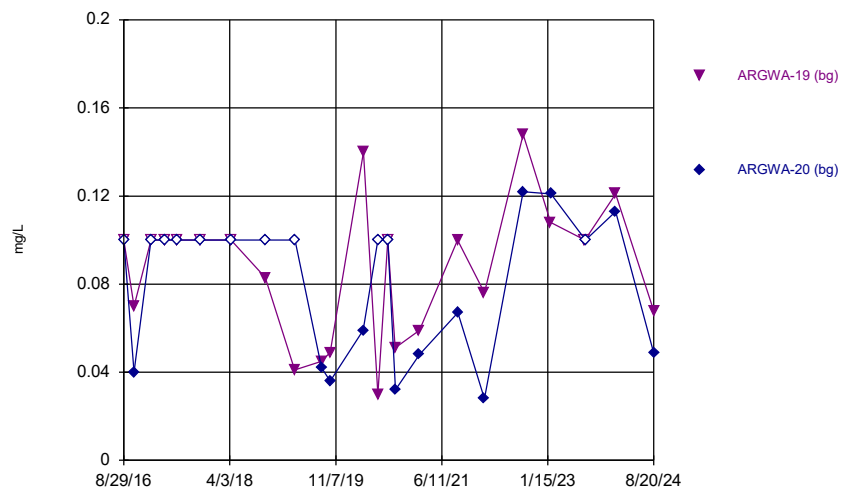
Constituent: Cobalt Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



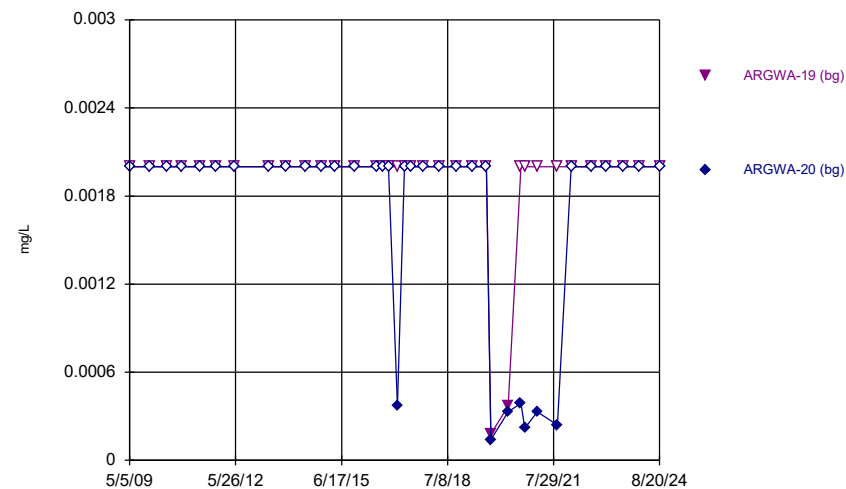
Constituent: Combined Radium 226 + 228 Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



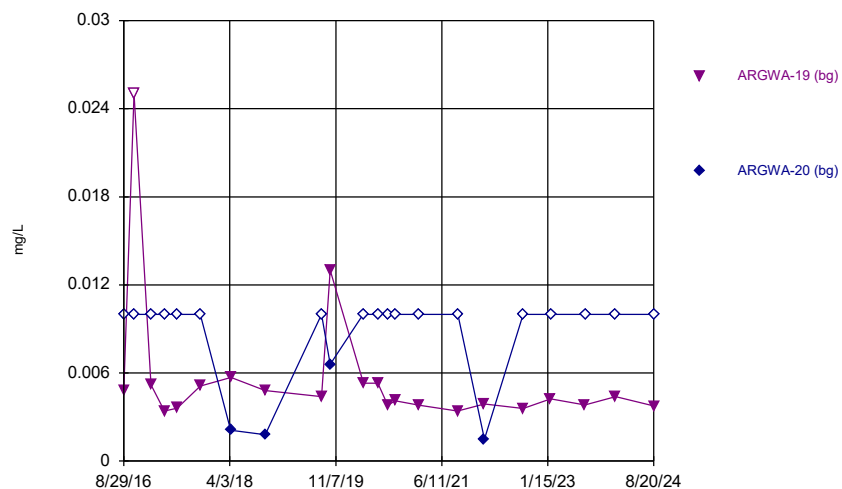
Constituent: Fluoride Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



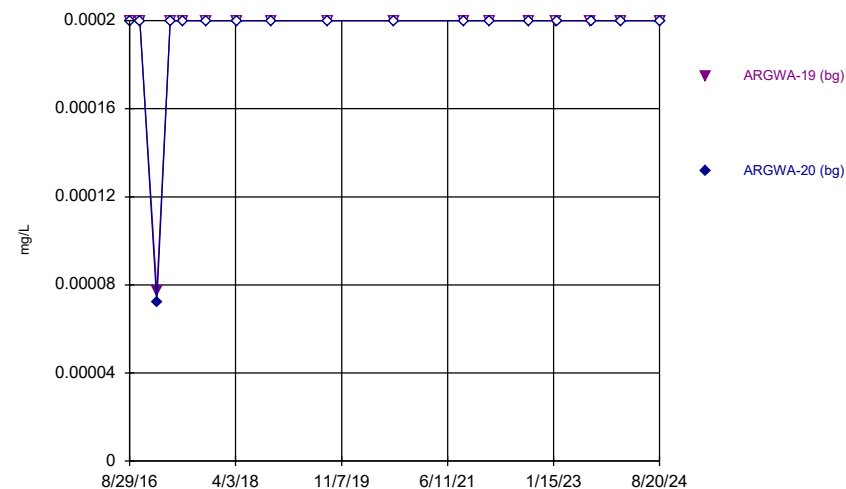
Constituent: Lead Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series



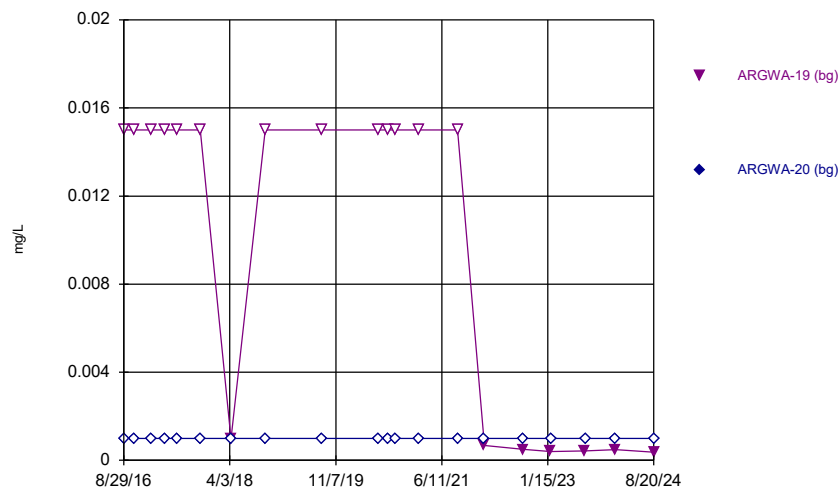
Constituent: Lithium Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Time Series

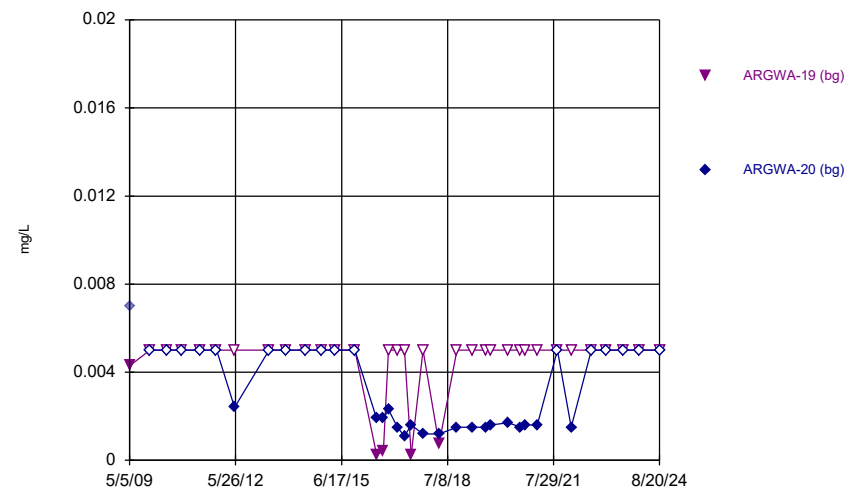


Constituent: Mercury Analysis Run 9/26/2024 11:59 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

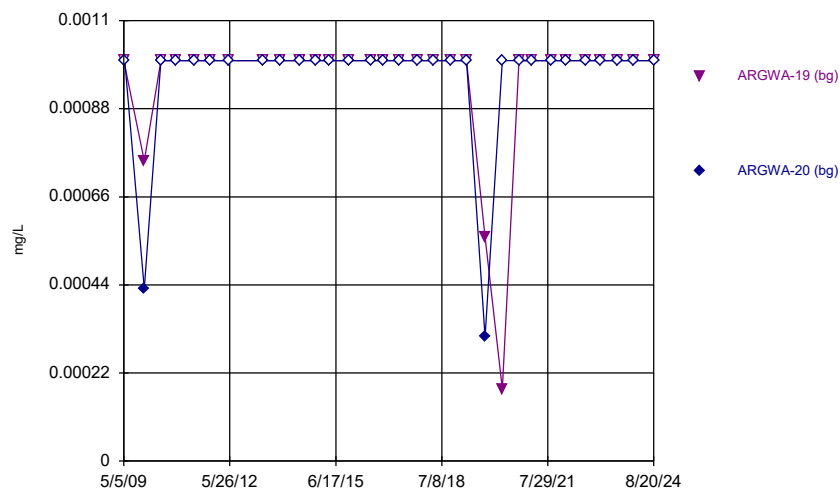
Time Series



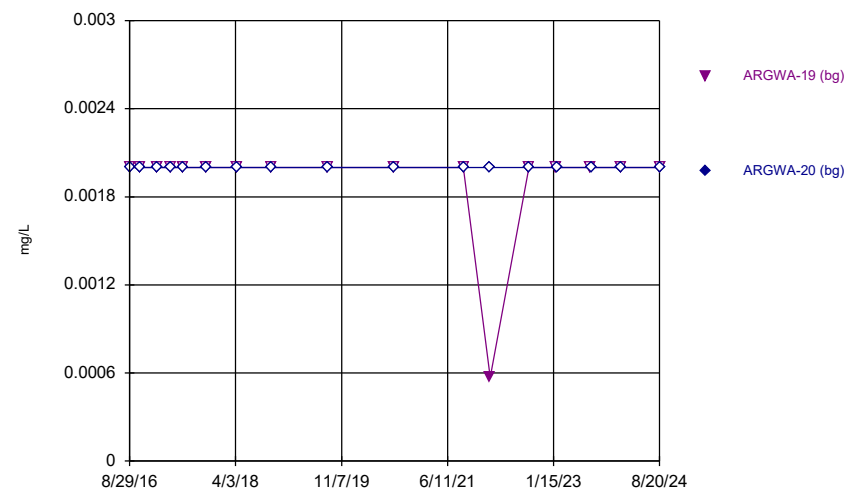
Time Series



Time Series

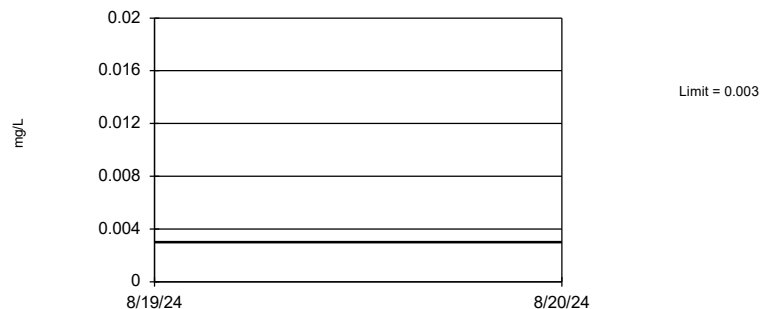


Time Series



Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Antimony Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 72 background values. 87.5% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02489.

Constituent: Arsenic Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric

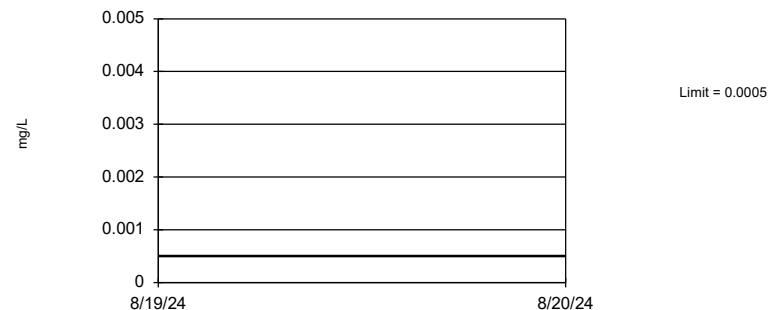


Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 72 background values. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02489.

Constituent: Barium Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 38 background values. 92.11% NDs. 88.48% coverage at alpha=0.01; 92.38% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1424.

Constituent: Beryllium Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 70 background values. 98.57% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02758.

Constituent: Cadmium Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. 26.19% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Constituent: Chromium Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 44 background values. 68.18% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Cobalt Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. 2.381% NDs. 89.65% coverage at alpha=0.01; 93.16% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.116.

Constituent: Combined Radium 226 + 228 Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric

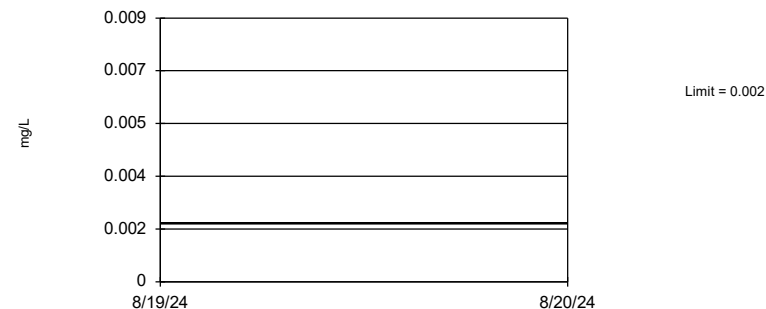


Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 46 background values. 41.3% NDs. 90.43% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.09447.

Constituent: Fluoride Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 72 background values. 87.5% NDs. 93.95% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.02489.

Constituent: Lead Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric

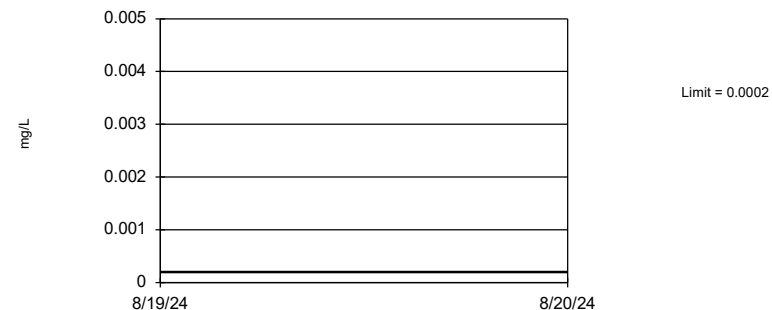


Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 43.18% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Lithium Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 34 background values. 94.12% NDs. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Mercury Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 40 background values. 82.5% NDs. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Molybdenum Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 71 background values. 67.61% NDs. 93.55% coverage at alpha=0.01; 95.9% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.0262.

Constituent: Selenium Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric

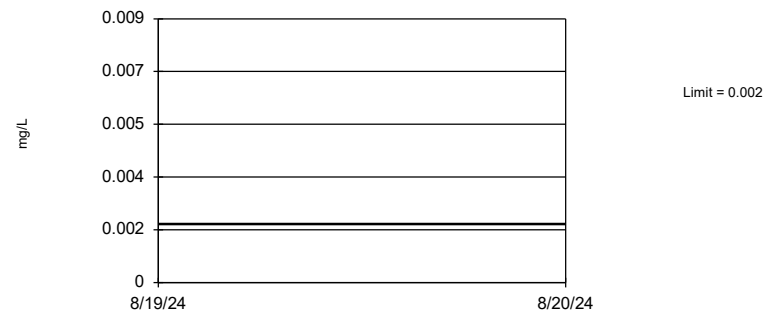


Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 62 background values. 91.94% NDs. 92.77% coverage at alpha=0.01; 95.12% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.04158.

Constituent: Silver Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 34 background values. 97.06% NDs. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Thallium Analysis Run 9/26/2024 11:58 AM View: Appendix IV - UTLs
Plant Arkwright Client: Southern Company Data: Arkwright No 2

FIGURE H.

PLANT ARKWRIGHT AP #2 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.11	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.001	0.006
Combined Radium, Total (pCi/L)	5		2.65	5
Fluoride, Total (mg/L)	4		0.15	4
Lead, Total (mg/L)	n/a	0.015	0.002	0.015
Lithium, Total (mg/L)	n/a	0.04	0.013	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.001	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Silver, Total (mg/L)	n/a		0.001	0.001
Thallium, Total (mg/L)	0.002		0.002	0.002

*MCL = Maximum Contaminant Level

*GWPS = Groundwater Protection Standard

*CCR = Coal Combustion Residuals

FIGURE I.

Confidence Interval Summary Table - Significant Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/30/2024, 1:44 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	ARAMW-7	0.07537	0.04752	0.006	Yes 9	0.05887	0.02163	0	None	x^3	0.01	Param.
Lithium (mg/L)	ARAMW-7	0.0779	0.0577	0.04	Yes 9	0.06306	0.006339	0	None	No	0.002	NP (normality)
Lithium (mg/L)	ARGWC-23	0.05532	0.04518	0.04	Yes 8	0.05025	0.00478	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-8	0.2005	0.1024	0.1	Yes 9	0.1479	0.06261	0	None	x^2	0.01	Param.

Confidence Interval Summary Table - All Results

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/30/2024, 1:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	ARAMW-8	0.003	0.00134	0.006	No 7	0.002763	0.0006274	85.71	None	No	0.008	NP (NDs)
Antimony (mg/L)	ARAMW-9	0.001904	0.0007461	0.006	No 4	0.002163	0.0009892	50	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	ARAMW-1	0.005	0.005	0.01	No 10	0.004733	0.0008443	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	ARAMW-2	0.03334	0.004106	0.01	No 10	0.02008	0.02536	0	None	x^(1/3)	0.01	Param.
Arsenic (mg/L)	ARAMW-7	0.005	0.00035	0.01	No 8	0.003269	0.002007	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	ARAMW-8	0.005	0.00031	0.01	No 8	0.003479	0.002163	62.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	ARGWC-21	0.005	0.0019	0.01	No 23	0.003027	0.001674	39.13	None	No	0.01	NP (normality)
Arsenic (mg/L)	ARGWC-22	0.005	0.00221	0.01	No 18	0.004092	0.001787	77.78	None	No	0.01	NP (NDs)
Arsenic (mg/L)	ARGWC-23	0.005	0.00075	0.01	No 18	0.004248	0.001731	83.33	None	No	0.01	NP (NDs)
Barium (mg/L)	ARAMW-1	0.05151	0.04251	2	No 10	0.04701	0.005048	0	None	No	0.01	Param.
Barium (mg/L)	ARAMW-2	0.1083	0.06061	2	No 10	0.08467	0.02857	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	ARAMW-7	0.03217	0.02428	2	No 8	0.02818	0.004008	0	None	ln(x)	0.01	Param.
Barium (mg/L)	ARAMW-8	0.1173	0.0939	2	No 8	0.1056	0.01106	0	None	No	0.01	Param.
Barium (mg/L)	ARGWC-21	0.12	0.045	2	No 23	0.08066	0.03529	0	None	No	0.01	NP (normality)
Barium (mg/L)	ARGWC-22	0.04571	0.02815	2	No 18	0.0381	0.01609	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	ARGWC-23	0.1437	0.09733	2	No 18	0.1205	0.03829	0	None	No	0.01	Param.
Barium (mg/L)	ARAMW-9	0.02495	0.004949	2	No 4	0.01495	0.004405	0	None	No	0.01	Param.
Beryllium (mg/L)	ARAMW-7	0.0025	0.000236	0.004	No 8	0.001125	0.001139	37.5	None	No	0.004	NP (normality)
Beryllium (mg/L)	ARGWC-22	0.0005	0.00036	0.004	No 17	0.0004388	0.0001192	70.59	None	No	0.01	NP (NDs)
Beryllium (mg/L)	ARGWC-23	0.0005	0.00033	0.004	No 17	0.00049	0.00004123	94.12	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-21	0.01	0.0017	0.1	No 21	0.009605	0.001811	95.24	None	No	0.01	NP (NDs)
Chromium (mg/L)	ARGWC-22	0.01	0.0048	0.1	No 18	0.009711	0.001226	94.44	None	No	0.01	NP (NDs)
Cobalt (mg/L)	ARAMW-1	0.0008499	0.0004085	0.006	No 11	0.0006354	0.0002714	9.091	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	ARAMW-2	0.002936	0.002064	0.006	No 11	0.0025	0.0005235	0	None	No	0.01	Param.
Cobalt (mg/L)	ARAMW-7	0.07537	0.04752	0.006	Yes 9	0.05887	0.02163	0	None	x^3	0.01	Param.
Cobalt (mg/L)	ARAMW-8	0.005031	0.002407	0.006	No 9	0.003719	0.001359	0	None	No	0.01	Param.
Cobalt (mg/L)	ARGWC-21	0.0018	0.0007	0.006	No 22	0.001279	0.0005844	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	ARGWC-22	0.00766	0.002677	0.006	No 19	0.005733	0.00496	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	ARGWC-23	0.001791	0.0007307	0.006	No 19	0.00153	0.001291	5.263	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-1	4.227	0.4887	5	No 10	2.418	2.732	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-2	5.492	2.154	5	No 10	3.879	2.411	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-7	5.122	3.943	5	No 8	4.533	0.5562	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-8	2.547	0.1616	5	No 8	1.275	1.233	12.5	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-21	1.349	0.608	5	No 21	1.219	1.204	4.762	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-22	1.169	0.4018	5	No 18	0.8644	0.7312	5.556	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARGWC-23	0.9762	0.1958	5	No 18	0.7036	0.8296	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	ARAMW-9	5.909	-0.8624	5	No 4	2.523	1.491	0	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-1	0.2184	0.1645	4	No 11	0.1915	0.03238	0	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-2	0.1417	0.08199	4	No 11	0.1118	0.0358	9.091	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-7	0.1031	0.03332	4	No 9	0.08711	0.03443	33.33	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	ARAMW-8	0.2498	0.1705	4	No 9	0.2101	0.04107	0	None	No	0.01	Param.
Fluoride (mg/L)	ARGWC-21	0.1557	0.09039	4	No 23	0.138	0.1027	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	ARGWC-22	0.134	0.045	4	No 19	0.08105	0.05799	15.79	None	No	0.01	NP (normality)
Fluoride (mg/L)	ARGWC-23	0.3682	0.2266	4	No 19	0.2974	0.1209	0	None	No	0.01	Param.
Fluoride (mg/L)	ARAMW-9	1.042	0.7759	4	No 4	0.9088	0.05851	0	None	No	0.01	Param.
Lead (mg/L)	ARAMW-7	0.002	0.00013	0.015	No 8	0.001766	0.0006611	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	ARGWC-21	0.002	0.00026	0.015	No 23	0.001844	0.0005174	91.3	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-22	0.002	0.00022	0.015	No 18	0.001798	0.0005887	88.89	None	No	0.01	NP (NDs)
Lead (mg/L)	ARGWC-23	0.002	0.00026	0.015	No 18	0.001802	0.0005758	88.89	None	No	0.01	NP (NDs)
Lithium (mg/L)	ARAMW-1	0.009982	0.008532	0.04	No 12	0.009236	0.0009998	0	None	x^2	0.01	Param.
Lithium (mg/L)	ARAMW-2	0.036	0.0172	0.04	No 12	0.0267	0.01943	0	None	No	0.01	NP (normality)
Lithium (mg/L)	ARAMW-7	0.0779	0.0577	0.04	Yes 9	0.06306	0.006339	0	None	No	0.002	NP (normality)
Lithium (mg/L)	ARAMW-8	0.006662	0.005466	0.04	No 9	0.00605	0.0007237	0	None	x^3	0.01	Param.
Lithium (mg/L)	ARGWC-21	0.01221	0.009968	0.04	No 22	0.01109	0.002084	0	None	No	0.01	Param.
Lithium (mg/L)	ARGWC-22	0.02372	0.01529	0.04	No 19	0.01951	0.007205	0	None	No	0.01	Param.

Confidence Interval Summary Table - All Results

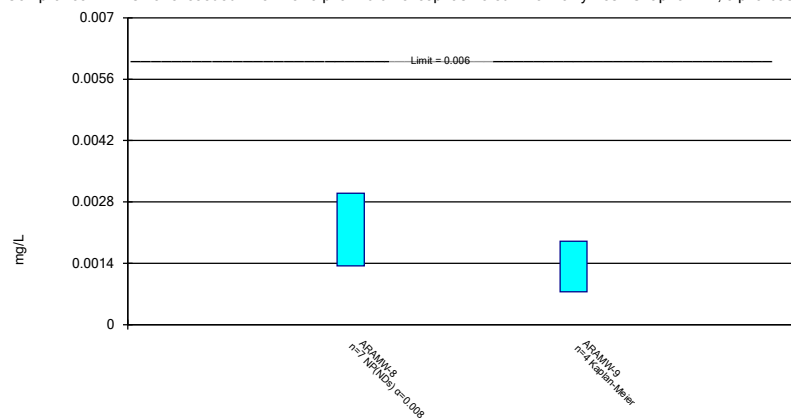
Page 2

Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/30/2024, 1:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	ARGWC-23	0.05532	0.04518	0.04	Yes 8	0.05025	0.00478	0	None	No	0.01	Param.
Lithium (mg/L)	ARAMW-9	0.01179	0	0.04	No 4	0.007975	0.002264	0	None	x^2	0.01	Param.
Mercury (mg/L)	ARGWC-21	0.0002	0.000073	0.002	No 17	0.0001925	0.0000308	94.12	None	No	0.01	NP (NDs)
Mercury (mg/L)	ARGWC-22	0.000372	0.0002	0.002	No 15	0.0002115	0.00004441	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	ARAMW-1	0.008455	0.005284	0.1	No 11	0.006869	0.001903	0	None	No	0.01	Param.
Molybdenum (mg/L)	ARAMW-2	0.015	0.000585	0.1	No 11	0.007281	0.007394	45.45	None	No	0.006	NP (normality)
Molybdenum (mg/L)	ARAMW-7	0.0012	0.000257	0.1	No 9	0.0008707	0.0003215	66.67	None	No	0.002	NP (NDs)
Molybdenum (mg/L)	ARAMW-8	0.2005	0.1024	0.1	Yes 9	0.1479	0.06261	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	ARGWC-22	0.015	0.000496	0.1	No 18	0.007859	0.007356	50	None	No	0.01	NP (normality)
Molybdenum (mg/L)	ARGWC-23	0.06445	0.04668	0.1	No 18	0.05339	0.0183	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	ARAMW-9	0.01998	0	0.1	No 4	0.008525	0.005046	0	None	No	0.01	Param.
Selenium (mg/L)	ARGWC-22	0.005	0.002	0.05	No 18	0.004833	0.0007071	94.44	None	No	0.01	NP (NDs)
Silver (mg/L)	ARGWC-21	0.001	0.00043	0.001	No 18	0.0009683	0.0001344	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-22	0.002	0.00035	0.002	No 15	0.001583	0.0007244	73.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	ARGWC-23	0.002	0.00028	0.002	No 15	0.001653	0.0007177	80	None	No	0.01	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

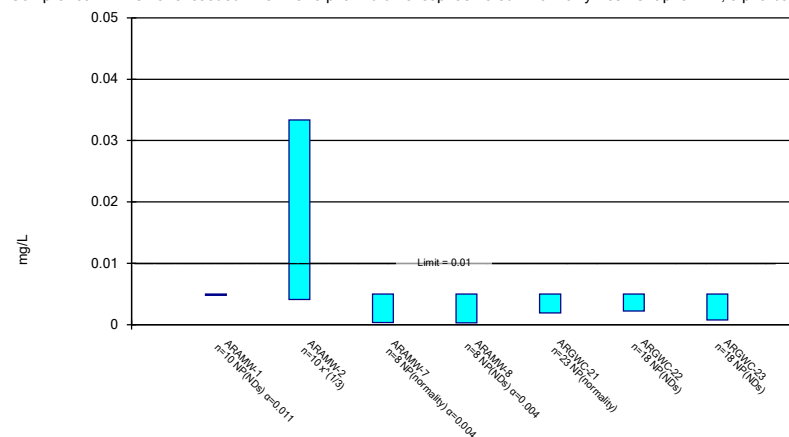
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Antimony Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Parametric and Non-Parametric (NP) Confidence Interval

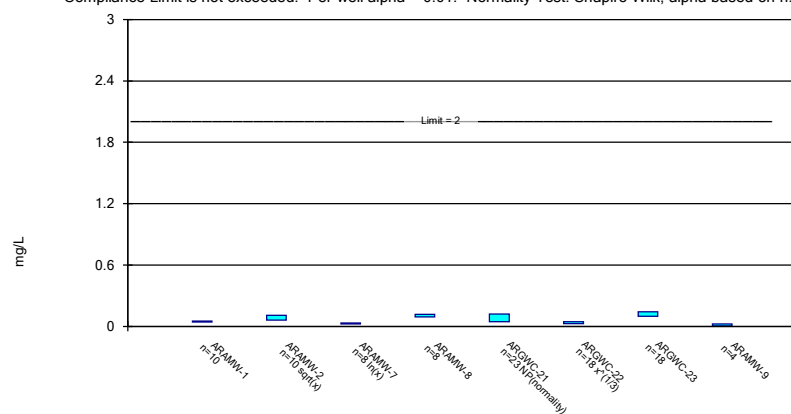
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Constituent: Arsenic Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Parametric and Non-Parametric (NP) Confidence Interval

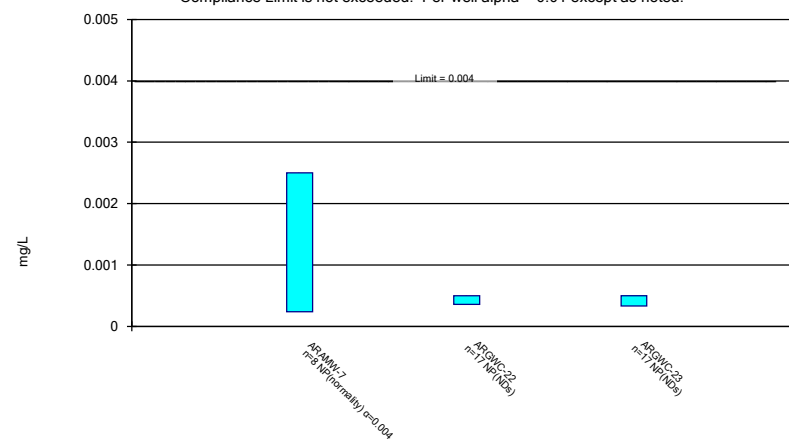
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Non-Parametric Confidence Interval

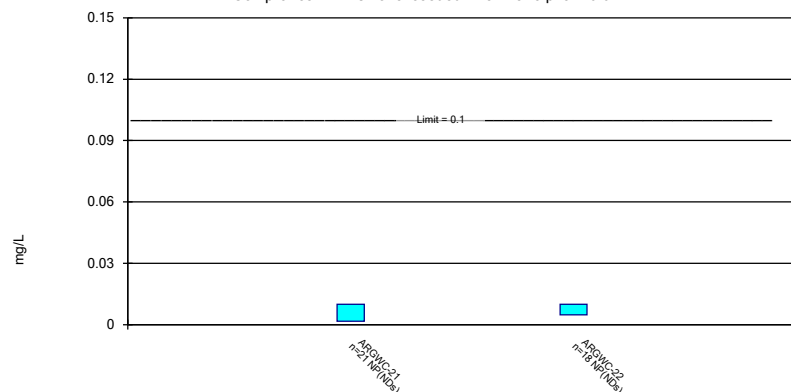
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Non-Parametric Confidence Interval

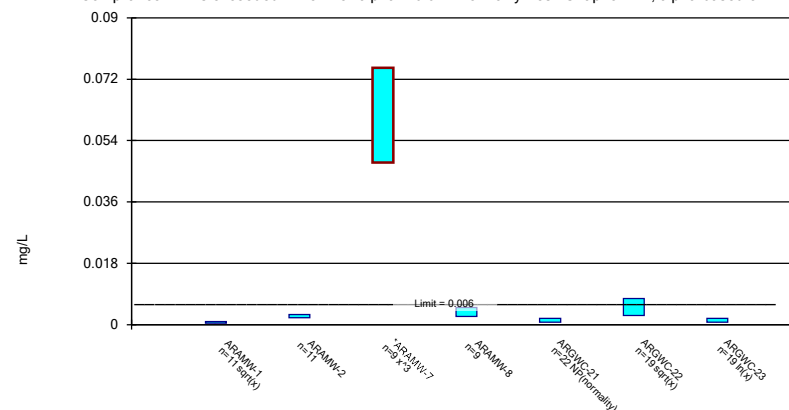
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Parametric and Non-Parametric (NP) Confidence Interval

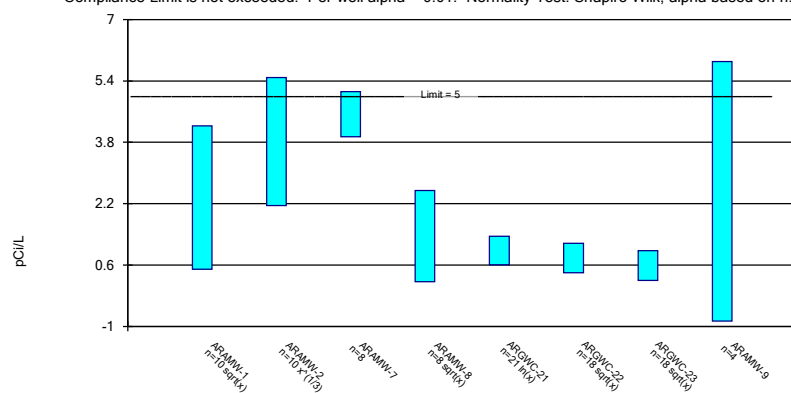
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Parametric Confidence Interval

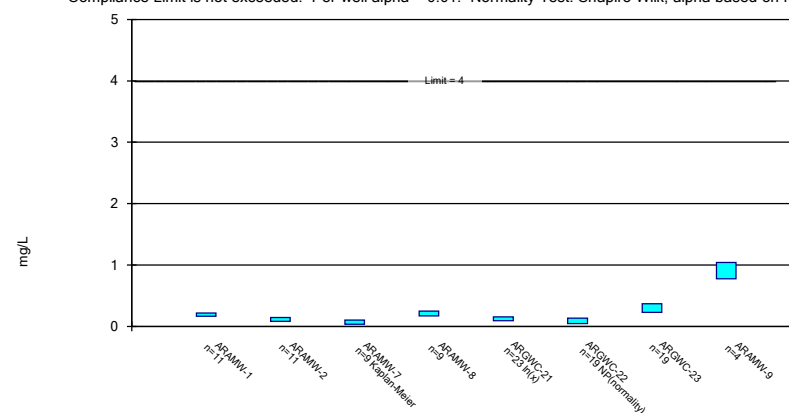
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Parametric and Non-Parametric (NP) Confidence Interval

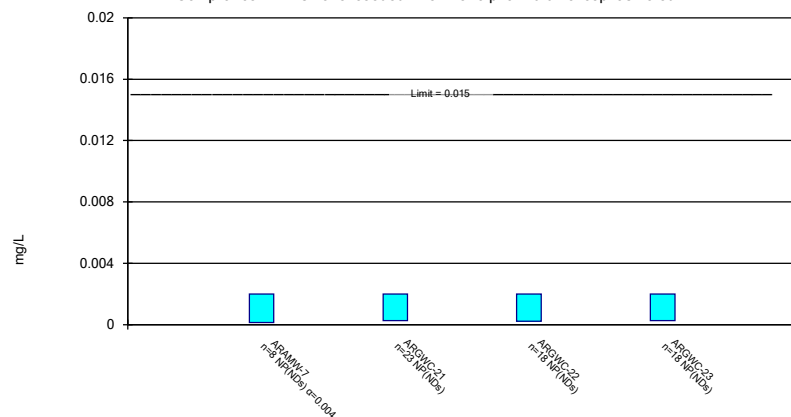
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Non-Parametric Confidence Interval

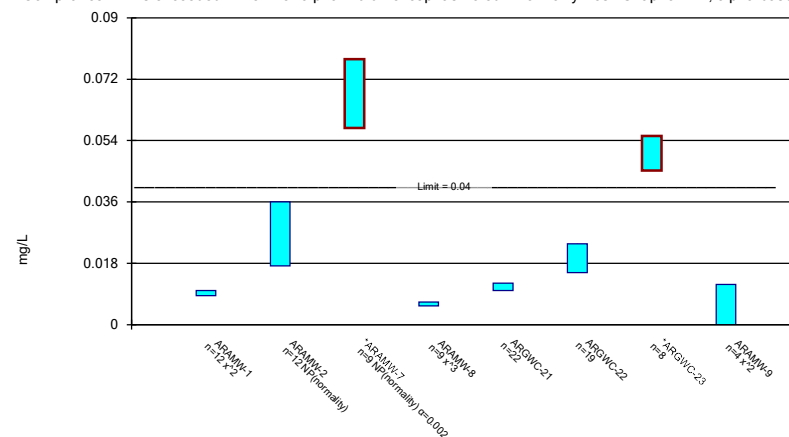
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Parametric and Non-Parametric (NP) Confidence Interval

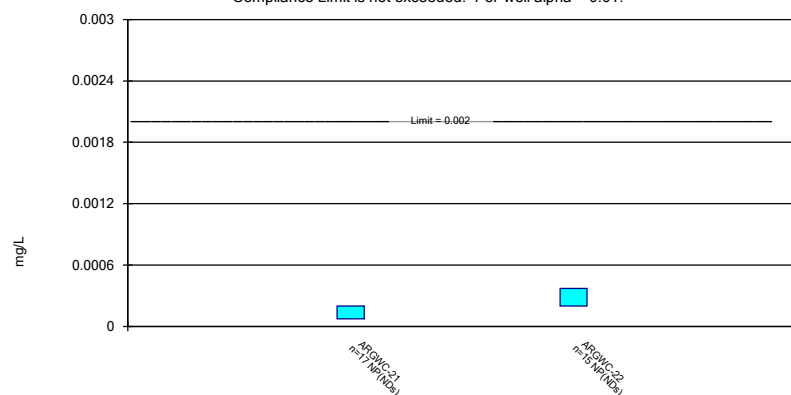
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 9/30/2024 1:42 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Non-Parametric Confidence Interval

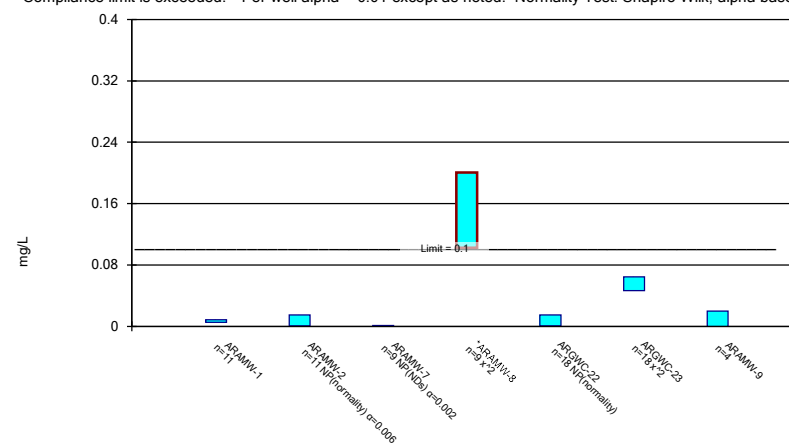
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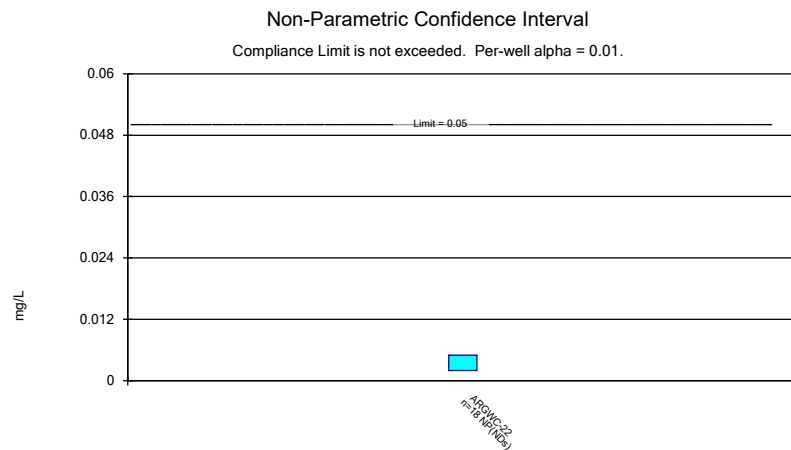
Constituent: Mercury Analysis Run 9/30/2024 1:43 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Parametric and Non-Parametric (NP) Confidence Interval

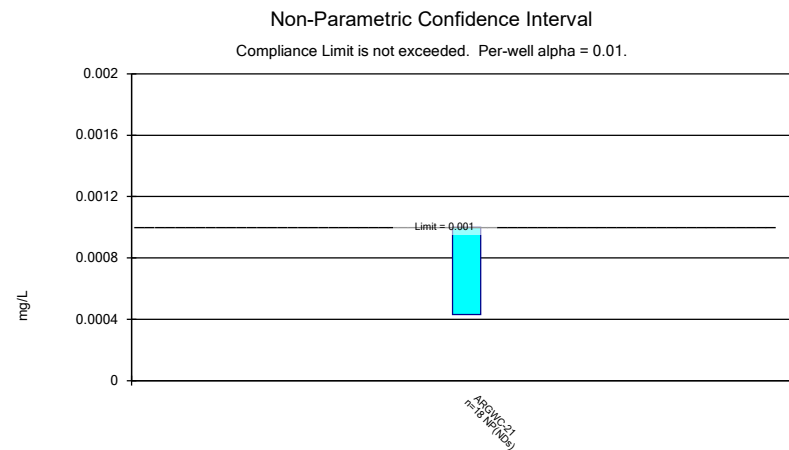
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



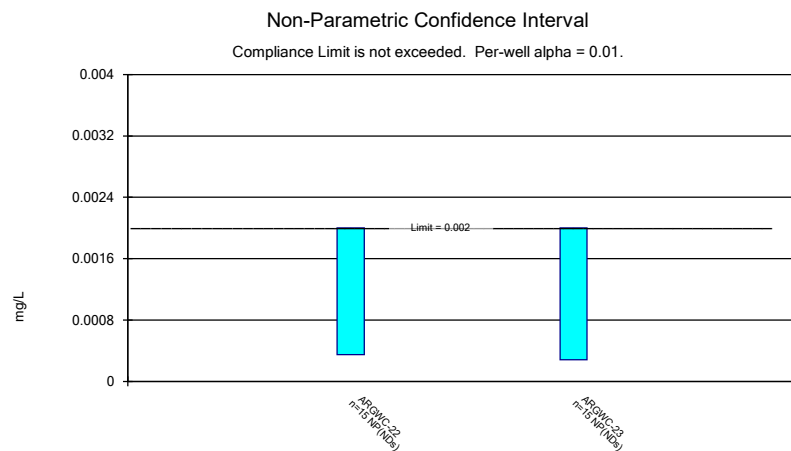
Constituent: Molybdenum Analysis Run 9/30/2024 1:43 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2



Constituent: Selenium Analysis Run 9/30/2024 1:43 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2



Constituent: Silver Analysis Run 9/30/2024 1:43 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2



Constituent: Thallium Analysis Run 9/30/2024 1:43 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-8	ARAMW-9
9/9/2021	<0.003	
2/3/2022	<0.003	
9/2/2022	<0.003	
1/31/2023	<0.003	
2/1/2023		<0.003
8/8/2023		0.00158 (J)
8/9/2023	0.00134 (J)	
1/23/2024		0.00107 (J)
1/24/2024	<0.003	
8/20/2024	<0.003	<0.003
Mean	0.002763	0.002163
Std. Dev.	0.0006274	0.0009892
Upper Lim.	0.003	0.001904
Lower Lim.	0.00134	0.0007461

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
 Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWC-21	ARGWC-22	ARGWC-23
6/23/2016					0.0011 (J)		
8/30/2016					0.002		
10/26/2016					0.0019 (J)		
1/25/2017					0.0017		
4/10/2017					0.002		
6/19/2017					0.0026		
10/24/2017					0.0021		
4/10/2018					0.0022		
10/16/2018					0.0021		
3/27/2019					0.0011 (J)		
8/20/2019					0.002		
10/8/2019					0.0012 (J)		
12/16/2019						0.00066 (J)	0.00075 (J)
1/14/2020						0.00038 (J)	0.00042 (J)
2/11/2020						0.0004 (J)	<0.005
3/9/2020						<0.005	<0.005
4/7/2020					0.00054 (J)	<0.005	<0.005
5/27/2020						<0.005	<0.005
7/15/2020						<0.005	<0.005
8/19/2020						<0.005	
8/20/2020	<0.005	0.084					<0.005
8/21/2020					<0.005		
9/22/2020						<0.005	<0.005
9/30/2020	<0.005					<0.005	
10/1/2020		0.0085			<0.005		<0.005
2/10/2021	<0.005				<0.005	<0.005	<0.005
2/11/2021		0.015	0.00075 (J)	0.00046 (J)			
9/8/2021					<0.005		
9/9/2021	<0.005			<0.005			<0.005
9/10/2021		0.044	<0.005			<0.005	
2/1/2022					<0.005		
2/2/2022			0.00035 (J)			<0.005	
2/3/2022	<0.005	0.0092		0.00031 (J)			0.0003 (J)
9/1/2022					0.00207 (J)		
9/2/2022	0.00233 (J)	0.0158		0.00206 (J)			
9/6/2022						<0.005	<0.005
9/7/2022			<0.005				
1/31/2023	<0.005	0.00363 (J)	0.00286 (J)	<0.005	<0.005	0.00221 (J)	<0.005
8/8/2023	<0.005	0.012	<0.005			<0.005	<0.005
8/9/2023				<0.005	<0.005		
1/23/2024			0.00219 (J)			<0.005	
1/24/2024	<0.005	0.0047 (J)		<0.005	<0.005		<0.005
8/20/2024	<0.005	0.00392 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
Mean	0.004733	0.02008	0.003269	0.003479	0.003027	0.004092	0.004248
Std. Dev.	0.0008443	0.02536	0.002007	0.002163	0.001674	0.001787	0.001731
Upper Lim.	0.005	0.03334	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.005	0.004106	0.00035	0.00031	0.0019	0.00221	0.00075

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
 Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
6/23/2016					0.13			
8/30/2016					0.11			
10/26/2016					0.122			
1/25/2017					0.12			
4/10/2017					0.11			
6/19/2017					0.13			
10/24/2017					0.12			
4/10/2018					0.12			
10/16/2018					0.1			
3/27/2019					0.091			
8/20/2019					0.1			
10/8/2019					0.096			
12/16/2019						0.076	0.096	
1/14/2020						0.071	0.075	
2/11/2020						0.046	0.046	
3/9/2020						0.039	0.14	
4/7/2020					0.05	0.04	0.16	
5/27/2020						0.054	0.18	
7/15/2020						0.043	0.16	
8/19/2020						0.046		
8/20/2020	0.055	0.14					0.16	
8/21/2020					0.054			
9/22/2020						0.038	0.16	
9/30/2020	0.052					0.033		
10/1/2020		0.075			0.051		0.17	
2/10/2021	0.046				0.044	0.032	0.13	
2/11/2021		0.09	0.037	0.092				
9/8/2021					0.045			
9/9/2021	0.051			0.094			0.12	
9/10/2021		0.13	0.029			0.026		
2/1/2022					0.045			
2/2/2022			0.029			0.025		
2/3/2022	0.046	0.078		0.096			0.1	
9/1/2022					0.0425			
9/2/2022	0.0445	0.0792		0.116				
9/6/2022						0.0226	0.0939	
9/7/2022			0.0263					
1/31/2023	0.0427	0.067	0.0243	0.11	0.0414	0.0237	0.0872	
2/1/2023								0.0158
8/8/2023	0.051	0.0753	0.0244			0.0255	0.0936	0.0207
8/9/2023				0.122	0.0474			
1/23/2024			0.0277			0.0227		0.0128
1/24/2024	0.043	0.0562		0.103	0.0427		0.0922	
8/20/2024	0.0389	0.056	0.0277	0.112	0.0431	0.0223	0.105	0.0105
Mean	0.04701	0.08467	0.02818	0.1056	0.08066	0.0381	0.1205	0.01495
Std. Dev.	0.005048	0.02857	0.004008	0.01106	0.03529	0.01609	0.03829	0.004405
Upper Lim.	0.05151	0.1083	0.03217	0.1173	0.12	0.04571	0.1437	0.02495
Lower Lim.	0.04251	0.06061	0.02428	0.0939	0.045	0.02815	0.09733	0.004949

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-7	ARGWC-22	ARGWC-23
12/16/2019		0.0005 (J)	0.00033 (J)
1/14/2020		0.00036 (J)	<0.0005
2/11/2020		0.00023	<0.0005
3/9/2020		0.00019	<0.0005
5/27/2020		0.00018 (J)	<0.0005
7/15/2020		<0.0005	<0.0005
8/19/2020		<0.0005	
8/20/2020			<0.0005
9/22/2020		<0.0005	<0.0005
9/30/2020		<0.0005	
10/1/2020			<0.0005
2/10/2021		<0.0005	<0.0005
2/11/2021	<0.0025		
9/9/2021			<0.0005
9/10/2021	<0.0025	<0.0005	
2/2/2022	<0.0025	<0.0005	
2/3/2022			<0.0005
9/6/2022		<0.0005	<0.0005
9/7/2022	0.000236 (J)		
1/31/2023	0.000296 (J)	<0.0005	<0.0005
8/8/2023	0.000272 (J)	<0.0005	<0.0005
1/23/2024	0.000378 (J)	<0.0005	
1/24/2024			<0.0005
8/20/2024	0.000318 (J)	<0.0005	<0.0005
Mean	0.001125	0.0004388	0.00049
Std. Dev.	0.001139	0.0001192	4.123E-05
Upper Lim.	0.0025	0.0005	0.0005
Lower Lim.	0.000236	0.00036	0.00033

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWC-21	ARGWC-22
8/30/2016	<0.01	
10/26/2016	<0.01	
1/25/2017	<0.01	
4/10/2017	<0.01	
6/19/2017	<0.01	
10/24/2017	<0.01	
4/10/2018	<0.01	
10/16/2018	<0.01	
8/20/2019	0.0017 (J)	
10/8/2019	<0.01	
12/16/2019		<0.01
1/14/2020		<0.01
2/11/2020		0.0048
3/9/2020		<0.01
4/7/2020	<0.01	<0.01
5/27/2020		<0.01
7/15/2020		<0.01
8/19/2020		<0.01
8/21/2020	<0.01	
9/22/2020		<0.01
9/30/2020		<0.01
10/1/2020	<0.01	
2/10/2021	<0.01	<0.01
9/8/2021	<0.01	
9/10/2021		<0.01
2/1/2022	<0.01	
2/2/2022		<0.01
9/1/2022	<0.01	
9/6/2022		<0.01
1/31/2023	<0.01	<0.01
8/8/2023		<0.01
8/9/2023	<0.01	
1/23/2024		<0.01
1/24/2024	<0.01	
8/20/2024	<0.01	<0.01
Mean	0.009605	0.009711
Std. Dev.	0.001811	0.001226
Upper Lim.	0.01	0.01
Lower Lim.	0.0017	0.0048

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWC-21	ARGWC-22	ARGWC-23
8/30/2016					0.0018 (J)		
10/26/2016					0.0018 (J)		
1/25/2017					0.0017 (J)		
4/10/2017					0.0016 (J)		
6/19/2017					0.0021 (J)		
10/24/2017					0.0019 (J)		
4/10/2018					0.0019 (J)		
10/16/2018					0.0019 (J)		
8/20/2019					0.0023		
10/8/2019					0.0018		
12/16/2019						0.018	0.0023
1/14/2020						0.0072	0.0031
2/11/2020						0.013	0.00056
3/9/2020						0.015	0.00061 (J)
4/7/2020					0.00087	0.009	0.0016
5/27/2020						0.0059	0.0017 (J)
6/24/2020	0.00097 (J)	0.0027				0.0047	
6/25/2020					0.00097 (J)		0.0014 (J)
7/15/2020						0.0027	0.0017 (J)
8/19/2020						0.0032	
8/20/2020	0.001 (J)	0.0022 (J)					0.0023 (J)
8/21/2020					0.00066 (J)		
9/22/2020						0.0085	0.0036
9/30/2020	0.001 (J)					0.0055	
10/1/2020		0.0036			0.00082 (J)		0.0052
11/30/2020			0.028				
12/1/2020				0.0054			
2/10/2021	0.00082 (J)				0.00063 (J)	0.0015 (J)	0.00072 (J)
2/11/2021		0.0028	0.017	0.0061			
9/8/2021					0.0007 (J)		
9/9/2021	0.00072 (J)			0.0046			0.0009 (J)
9/10/2021		0.0022 (J)	0.075			0.0015 (J)	
2/1/2022					0.0007 (J)		
2/2/2022			0.077			0.001 (J)	
2/3/2022	0.00045 (J)	0.0028		0.0028			0.00063 (J)
9/1/2022					0.00069 (J)		
9/2/2022	0.000449 (J)	0.002		0.00292			
9/6/2022						0.00198	0.000588 (J)
9/7/2022			0.0737				
1/31/2023	0.000399 (J)	0.00282	0.0687	0.00321	0.000659 (J)	0.00154	0.000742 (J)
8/8/2023	0.00035 (J)	0.00223	0.0605			0.00184	0.00044 (J)
8/9/2023				0.00364	0.000813 (J)		
1/23/2024			0.0597			0.00408	
1/24/2024	0.000331 (J)	0.00249		0.00203	0.00106		<0.001
8/20/2024	<0.001	0.00166	0.0702	0.00277	0.000769 (J)	0.00279	0.000484 (J)
Mean	0.0006354	0.0025	0.05887	0.003719	0.001279	0.005733	0.00153
Std. Dev.	0.0002714	0.0005235	0.02163	0.001359	0.0005844	0.00496	0.001291
Upper Lim.	0.0008499	0.002936	0.07537	0.005031	0.0018	0.00766	0.001791
Lower Lim.	0.0004085	0.002064	0.04752	0.002407	0.0007	0.002677	0.0007307

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/30/2016					0.832			
10/26/2016					1.27			
1/25/2017					0.549			
4/10/2017					0.556			
6/19/2017					0.976			
10/24/2017					0.504			
4/10/2018					0.621			
10/16/2018					0.796			
8/20/2019					0.978			
10/8/2019					0.588			
12/16/2019						0.229 (U)	0.166 (U)	
1/14/2020						0.783	0.869	
2/11/2020						0.229 (U)	0.0291 (U)	
3/9/2020						0.365	0.626	
4/7/2020					0.433 (U)	0.567	0.296 (U)	
5/27/2020						0.143 (U)	0.192 (U)	
7/15/2020						0.97	0.279 (U)	
8/19/2020						0.587 (U)		
8/20/2020	0.527	4.13					0.242 (U)	
8/21/2020					0.472			
9/22/2020						0.884	0.0177 (U)	
9/30/2020	0.249 (U)					0.602		
10/1/2020		2.86			0.496 (U)		0.749	
2/10/2021	0.949				0.625	0.233 (U)	0.0408 (U)	
2/11/2021		2.09	5.1	0.285 (U)				
9/8/2021					1.12			
9/9/2021	0.972			0.16 (U)			0.498	
9/10/2021		3.4	4.23			0.713		
2/1/2022					0.331 (U)			
2/2/2022			4.48			0.195 (U)		
2/3/2022	1.04	2.69		0.51			0.248 (U)	
9/1/2022					1.57			
9/2/2022	3.41	4.18		1.89				
9/6/2022						2.58	2.36	
9/7/2022			4.29					
1/31/2023	4.1	4.3	5.21	3.2	3.25	2.2	0.859 (U)	
2/1/2023								0.413 (U)
8/8/2023	1.16 (U)	1.86	4.83			1.22 (U)	0.363 (U)	3.92
8/9/2023				0.193 (U)	2.69			
1/23/2024			4.65			2.1		2.96
1/24/2024	9.3	10.3		2.87	5.34		2.73	
8/20/2024	2.47	2.98	3.47	<2.19 (D)	<3.22	<1.92	2.1	2.8
Mean	2.418	3.879	4.533	1.275	1.219	0.8644	0.7036	2.523
Std. Dev.	2.732	2.411	0.5562	1.233	1.204	0.7312	0.8296	1.491
Upper Lim.	4.227	5.492	5.122	2.547	1.349	1.169	0.9762	5.909
Lower Lim.	0.4887	2.154	3.943	0.1616	0.608	0.4018	0.1958	-0.8624

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/30/2016					0.099 (J)			
10/26/2016					0.57			
1/25/2017					0.12 (J)			
4/10/2017					0.11 (J)			
6/19/2017					0.11 (J)			
10/24/2017					0.1 (J)			
4/10/2018					0.094 (J)			
10/16/2018					0.17 (J)			
3/27/2019					0.05 (J)			
8/20/2019					0.098 (J)			
10/8/2019					0.065 (J)			
12/16/2019						0.026 (J)	0.18 (J)	
1/14/2020						<0.2	0.21	
2/11/2020						0.056	0.13	
3/9/2020						0.064 (J)	0.089 (J)	
4/7/2020					0.12	0.068 (J)	0.18	
5/27/2020						0.06 (J)	0.25	
6/24/2020	0.21	0.11				0.048 (J)		
6/25/2020					0.041 (J)		0.25	
7/15/2020						0.04 (J)	0.28	
8/19/2020						<0.2		
8/20/2020	0.23	<0.1					0.19	
8/21/2020					0.084 (J)			
9/22/2020						0.049 (J)	0.33	
9/30/2020	0.2					0.045 (J)		
10/1/2020		0.098 (J)			0.098 (J)		0.32	
11/30/2020			0.044 (J)					
12/1/2020				0.14				
2/10/2021	0.21				0.14	0.055 (J)	0.41	
2/11/2021		0.12	0.054 (J)	0.24				
9/8/2021					0.16			
9/9/2021	0.21			0.19			0.48	
9/10/2021		0.13	0.032 (J)			0.035 (J)		
2/1/2022					0.11			
2/2/2022			<0.1			0.04 (J)		
2/3/2022	0.16	0.095 (J)		0.17			0.4	
9/1/2022					0.161			
9/2/2022	0.18	0.146		0.206				
9/6/2022						0.056 (J)	0.362	
9/7/2022			<0.1					
1/31/2023	0.22 (J)	0.13 (J)	0.11 (J)	0.263 (J)	0.175 (J)	0.0979 (J)	0.551 (J)	
2/1/2023								0.938
8/8/2023	0.118	0.0571 (J)	<0.1			<0.2	0.283	0.837
8/9/2023				0.261	0.203			
1/23/2024			0.126			0.134		0.971
1/24/2024	0.199	0.171		0.222	0.173		0.391	
8/20/2024	0.169	0.123	0.118 (J)	0.199	0.124	0.066 (J)	0.365	0.889
Mean	0.1915	0.1118	0.08711	0.2101	0.138	0.08105	0.2974	0.9088
Std. Dev.	0.03238	0.0358	0.03443	0.04107	0.1027	0.05799	0.1209	0.05851
Upper Lim.	0.2184	0.1417	0.1031	0.2498	0.1557	0.134	0.3682	1.042
Lower Lim.	0.1645	0.08199	0.03332	0.1705	0.09039	0.045	0.2266	0.7759

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-7	ARGWC-21	ARGWC-22	ARGWC-23
6/23/2016		<0.002		
8/30/2016		<0.002		
10/26/2016		<0.002		
1/25/2017		<0.002		
4/10/2017		<0.002		
6/19/2017		<0.002		
10/24/2017		<0.002		
4/10/2018		<0.002		
10/16/2018		<0.002		
3/27/2019		<0.002		
8/20/2019		<0.002		
10/8/2019		0.00015 (J)		
12/16/2019			<0.002	<0.002
1/14/2020			0.00022 (J)	0.00018 (J)
2/11/2020			<0.002	0.00026 (J)
3/9/2020			<0.002	<0.002
4/7/2020		0.00026 (J)	0.00014 (J)	<0.002
5/27/2020			<0.002	<0.002
7/15/2020			<0.002	<0.002
8/19/2020			<0.002	
8/20/2020				<0.002
8/21/2020		<0.002		
9/22/2020			<0.002	<0.002
9/30/2020			<0.002	
10/1/2020		<0.002		<0.002
2/10/2021		<0.002	<0.002	<0.002
2/11/2021	0.00013 (J)			
9/8/2021		<0.002		
9/9/2021				<0.002
9/10/2021	<0.002		<0.002	
2/1/2022		<0.002		
2/2/2022	<0.002		<0.002	
2/3/2022				<0.002
9/1/2022		<0.002		
9/6/2022			<0.002	<0.002
9/7/2022	<0.002			
1/31/2023	<0.002	<0.002	<0.002	<0.002
8/8/2023	<0.002		<0.002	<0.002
8/9/2023		<0.002		
1/23/2024	<0.002		<0.002	
1/24/2024		<0.002		<0.002
8/20/2024	<0.002	<0.002	<0.002	<0.002
Mean	0.001766	0.001844	0.001798	0.001802
Std. Dev.	0.0006611	0.0005174	0.0005887	0.0005758
Upper Lim.	0.002	0.002	0.002	0.002
Lower Lim.	0.00013	0.00026	0.00022	0.00026

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWC-21	ARGWC-22	ARGWC-23	ARAMW-9
8/30/2016					0.0092			
10/26/2016					0.0071 (J)			
1/25/2017					0.0087			
4/10/2017					0.0074			
6/19/2017					0.0079			
10/24/2017					0.0097			
4/10/2018					0.012			
10/16/2018					0.01			
8/20/2019					0.0098			
10/8/2019					0.015			
12/16/2019						0.027	0.02	
1/14/2020	0.009	0.086				0.034	0.022	
2/11/2020						0.01	0.0078	
3/9/2020						0.0071	0.013	
4/7/2020					0.011	0.012	0.032	
5/27/2020						0.017	0.037	
6/24/2020	0.0084	0.018				0.023		
6/25/2020					0.013		0.043	
7/15/2020						0.021	0.042	
8/19/2020						0.026		
8/20/2020	0.0066	0.036					0.036	
8/21/2020					0.013			
9/22/2020						0.014	0.039	
9/30/2020	0.0091					0.014		
10/1/2020		0.019			0.012		0.04	
11/30/2020			0.061					
12/1/2020				0.0044 (J)				
2/10/2021	0.0097				0.012	0.022	0.044	
2/11/2021		0.021	0.061	0.0055				
9/8/2021					0.012			
9/9/2021	0.0095			0.0062			0.045	
9/10/2021		0.025	0.06			0.021		
2/1/2022					0.012			
2/2/2022			0.06			0.02		
2/3/2022	0.0099	0.021		0.0063			0.052	
9/1/2022					0.0116			
9/2/2022	0.0097 (J)	0.0232		0.00654 (J)				
9/6/2022						0.0136	0.0578	
9/7/2022			0.0634					
1/31/2023	0.0099 (J)	0.0202	0.068	0.00659 (J)	0.0124	0.0284	0.0499	
2/1/2023								0.00463 (J)
8/8/2023	0.00909 (J)	0.0193	0.0577			0.028	0.0517	0.00907 (J)
8/9/2023				0.00637 (J)	0.0131			
1/23/2024			0.0779			0.0125		0.00862 (J)
1/24/2024	0.0106	0.0172		0.00669 (J)	0.0131		0.0547	
8/20/2024	0.00934 (J)	0.0145	0.0585	0.00586 (J)	0.0119	0.02	0.0469	0.00958 (J)
Mean	0.009236	0.0267	0.06306	0.00605	0.01109	0.01951	0.05025	0.007975
Std. Dev.	0.0009998	0.01943	0.006339	0.0007237	0.002084	0.007205	0.00478	0.002264
Upper Lim.	0.009982	0.036	0.0779	0.006662	0.01221	0.02372	0.05532	0.01179
Lower Lim.	0.008532	0.0172	0.0577	0.005466	0.009968	0.01529	0.04518	0

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWC-21	ARGWC-22
8/30/2016	<0.0002	
10/26/2016	<0.0002	
1/25/2017	7.3E-05 (J)	
4/10/2017	<0.0002	
6/19/2017	<0.0002	
10/24/2017	<0.0002	
4/10/2018	<0.0002	
10/16/2018	<0.0002	
8/20/2019	<0.0002	
12/16/2019		<0.0002
1/14/2020		<0.0002
2/11/2020		<0.0002
3/9/2020		<0.0002
5/27/2020		<0.0002
7/15/2020		<0.0002
8/19/2020		<0.0002
8/21/2020	<0.0002	
9/22/2020		<0.0002
9/8/2021	<0.0002	
9/10/2021		<0.0002
2/1/2022	<0.0002	
2/2/2022		<0.0002
9/1/2022	<0.0002	
9/6/2022		<0.0002
1/31/2023	<0.0002	<0.0002
8/8/2023		<0.0002
8/9/2023	<0.0002	
1/23/2024		0.000372
1/24/2024	<0.0002	
8/20/2024	<0.0002	<0.0002
Mean	0.0001925	0.0002115
Std. Dev.	3.08E-05	4.441E-05
Upper Lim.	0.0002	0.000372
Lower Lim.	7.3E-05	0.0002

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals

Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARAMW-1	ARAMW-2	ARAMW-7	ARAMW-8	ARGWC-22	ARGWC-23	ARAMW-9
12/16/2019					0.0018 (J)	0.025	
1/14/2020					0.0012 (J)	0.032	
2/11/2020					0.00093	0.021	
3/9/2020					0.00067	0.013 (J)	
5/27/2020					<0.015	0.048	
6/24/2020	0.0051 (J)	<0.015			<0.015		
6/25/2020						0.055	
7/15/2020					<0.015	0.055	
8/19/2020					<0.015		
8/20/2020	0.0076 (J)	0.0013 (J)				0.061	
9/22/2020					<0.015	0.053	
9/30/2020	0.0054 (J)				<0.015		
10/1/2020		<0.015				0.064	
11/30/2020			0.0012 (J)				
12/1/2020				0.056			
2/10/2021	0.0043 (J)				<0.015	0.063	
2/11/2021		<0.015	<0.001	0.038			
9/9/2021	0.0059 (J)			0.12		0.071	
9/10/2021		<0.015	<0.001		<0.015		
2/2/2022			<0.001		<0.015		
2/3/2022	0.0049 (J)	<0.015		0.16		0.065	
9/2/2022	0.00785	0.000603 (J)		0.175			
9/6/2022					0.000203 (J)	0.067	
9/7/2022			0.000379 (J)				
1/31/2023	0.00974	0.000491 (J)	<0.001	0.188	0.000496 (J)	0.0671	
2/1/2023							0.014
8/8/2023	0.00667	0.0011	<0.001		0.000514 (J)	0.0618	0.0109
8/9/2023				0.203			
1/23/2024			<0.001		0.00025 (J)		0.00683
1/24/2024	0.00937	0.00101		0.196		0.0651	
8/20/2024	0.00873	0.000585 (J)	0.000257 (J)	0.195	0.000406 (J)	0.074	0.00237
Mean	0.006869	0.007281	0.0008707	0.1479	0.007859	0.05339	0.008525
Std. Dev.	0.001903	0.007394	0.0003215	0.06261	0.007356	0.0183	0.005046
Upper Lim.	0.008455	0.015	0.0012	0.2005	0.015	0.06445	0.01998
Lower Lim.	0.005284	0.000585	0.000257	0.1024	0.000496	0.04668	0

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWC-22
12/16/2019	<0.005
1/14/2020	<0.005
2/11/2020	<0.005
3/9/2020	<0.005
4/7/2020	<0.005
5/27/2020	<0.005
7/15/2020	<0.005
8/19/2020	<0.005
9/22/2020	<0.005
9/30/2020	<0.005
2/10/2021	<0.005
9/10/2021	0.002 (J)
2/2/2022	<0.005
9/6/2022	<0.005
1/31/2023	<0.005
8/8/2023	<0.005
1/23/2024	<0.005
8/20/2024	<0.005
Mean	0.004833
Std. Dev.	0.0007071
Upper Lim.	0.005
Lower Lim.	0.002

Confidence Interval

Constituent: Silver (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWC-21
6/23/2016	<0.001
10/26/2016	<0.001
4/10/2017	<0.001
10/24/2017	<0.001
4/10/2018	<0.001
10/16/2018	<0.001
3/27/2019	<0.001
10/8/2019	0.00043 (J)
4/7/2020	<0.001
10/1/2020	<0.001
2/10/2021	<0.001
9/8/2021	<0.001
2/1/2022	<0.001
9/1/2022	<0.001
1/31/2023	<0.001
8/9/2023	<0.001
1/24/2024	<0.001
8/20/2024	<0.001
Mean	0.0009683
Std. Dev.	0.0001344
Upper Lim.	0.001
Lower Lim.	0.00043

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 9/30/2024 1:44 PM View: Confidence Intervals
Plant Arkwright Client: Southern Company Data: Arkwright No 2

	ARGWC-22	ARGWC-23
12/16/2019	0.00078 (J)	<0.002
1/14/2020	0.00027 (J)	<0.002
2/11/2020	0.00034	0.00028 (J)
3/9/2020	0.00035 (J)	0.00026 (J)
5/27/2020	<0.002	0.00026 (J)
7/15/2020	<0.002	<0.002
8/19/2020	<0.002	
8/20/2020		<0.002
9/22/2020	<0.002	<0.002
9/9/2021		<0.002
9/10/2021	<0.002	
2/2/2022	<0.002	
2/3/2022		<0.002
9/6/2022	<0.002	<0.002
1/31/2023	<0.002	<0.002
8/8/2023	<0.002	<0.002
1/23/2024	<0.002	
1/24/2024		<0.002
8/20/2024	<0.002	<0.002
Mean	0.001583	0.001653
Std. Dev.	0.0007244	0.0007177
Upper Lim.	0.002	0.002
Lower Lim.	0.00035	0.00028

FIGURE J.

Appendix IV Trend Tests - Significant Results

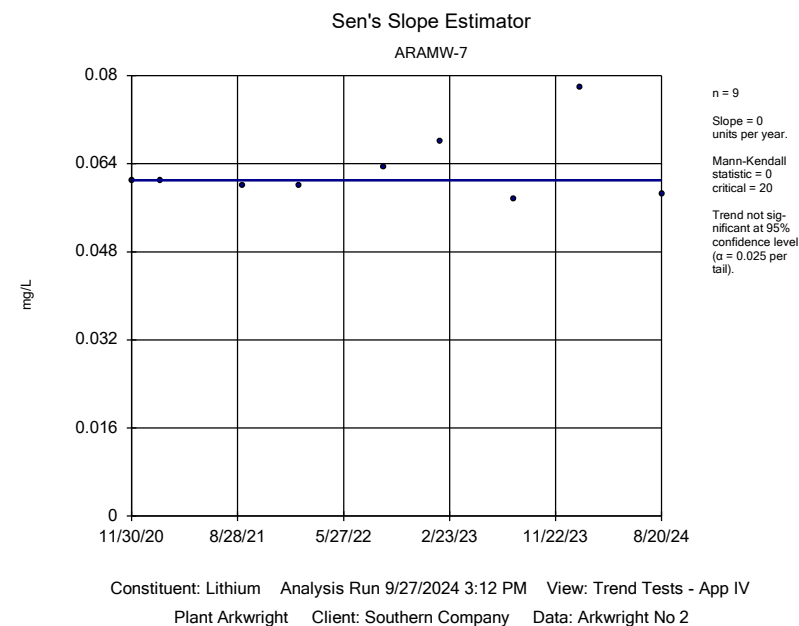
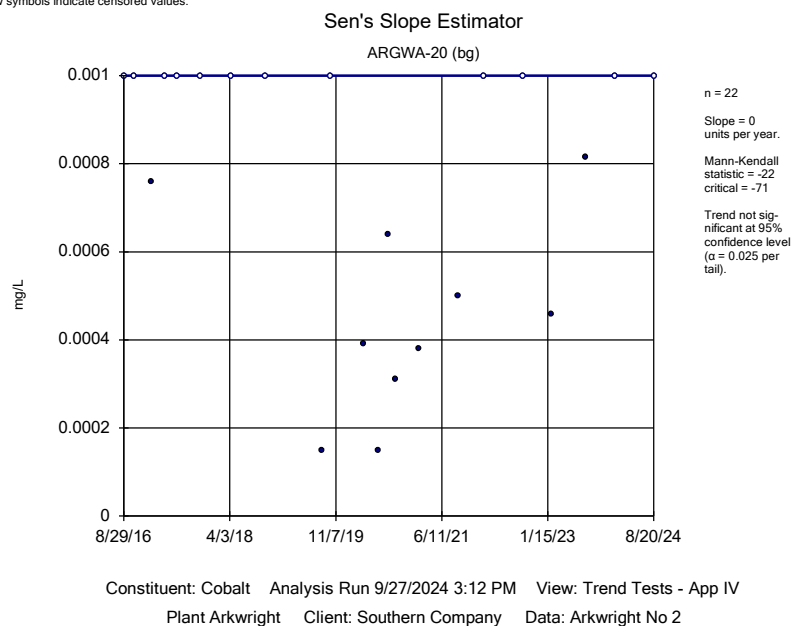
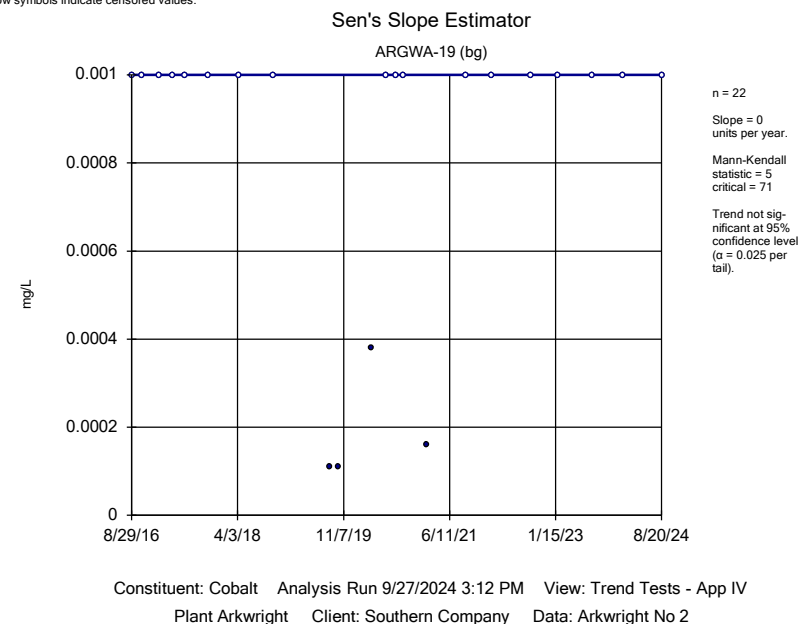
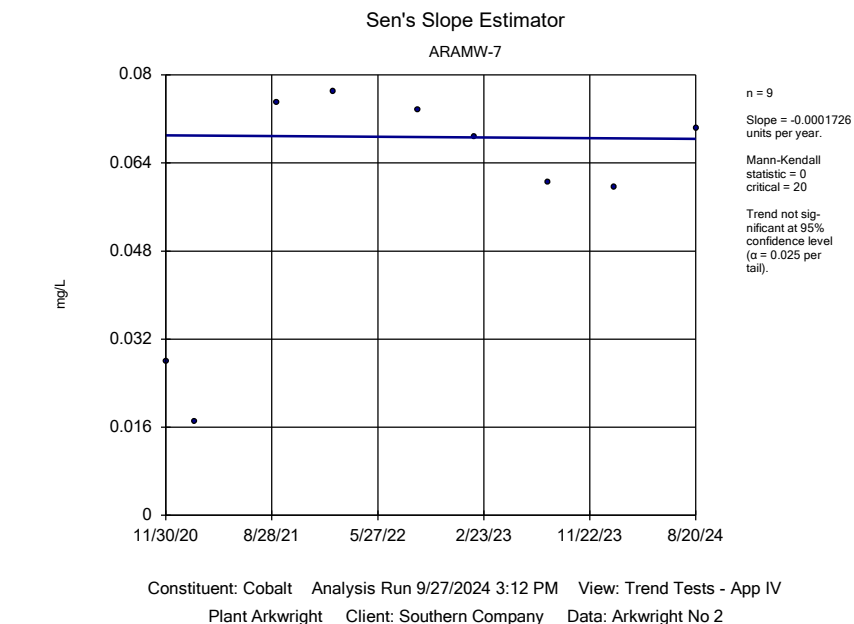
Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/27/2024, 3:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (mg/L)	ARGWC-23	0.008693	127	58	Yes	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARAMW-8	0.03468	28	20	Yes	9	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARGWA-19 (bg)	-0.00008875	-92	-62	Yes	20	65	n/a	n/a	0.05	NP

Appendix IV Trend Tests - All Results

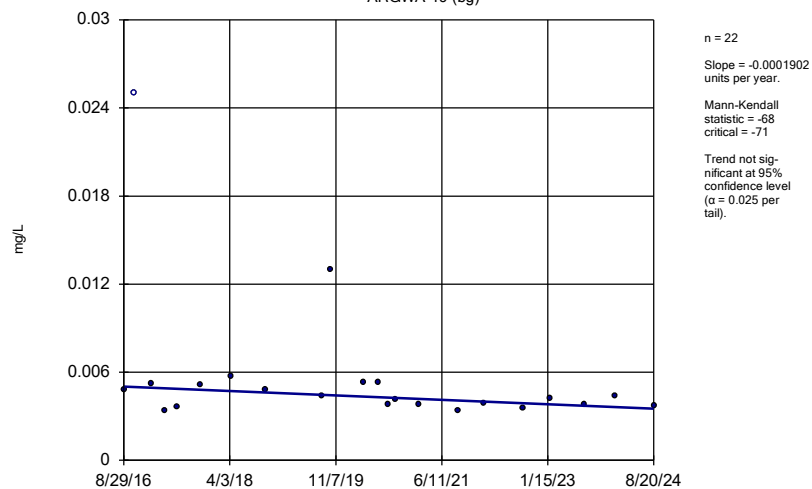
Plant Arkwright Client: Southern Company Data: Arkwright No 2 Printed 9/27/2024, 3:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	ARAMW-7	-0.0001726	0	20	No	9	0	n/a	n/a	0.05	NP
Cobalt (mg/L)	ARGWA-19 (bg)	0	5	71	No	22	81.82	n/a	n/a	0.05	NP
Cobalt (mg/L)	ARGWA-20 (bg)	0	-22	-71	No	22	54.55	n/a	n/a	0.05	NP
Lithium (mg/L)	ARAMW-7	0	0	20	No	9	0	n/a	n/a	0.05	NP
Lithium (mg/L)	ARGWA-19 (bg)	-0.0001902	-68	-71	No	22	4.545	n/a	n/a	0.05	NP
Lithium (mg/L)	ARGWA-20 (bg)	0	6	71	No	22	81.82	n/a	n/a	0.05	NP
Lithium (mg/L)	ARGWC-23	0.008693	127	58	Yes	19	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARAMW-8	0.03468	28	20	Yes	9	0	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARGWA-19 (bg)	-0.00008875	-92	-62	Yes	20	65	n/a	n/a	0.05	NP
Molybdenum (mg/L)	ARGWA-20 (bg)	0	0	62	No	20	100	n/a	n/a	0.05	NP



Sen's Slope Estimator

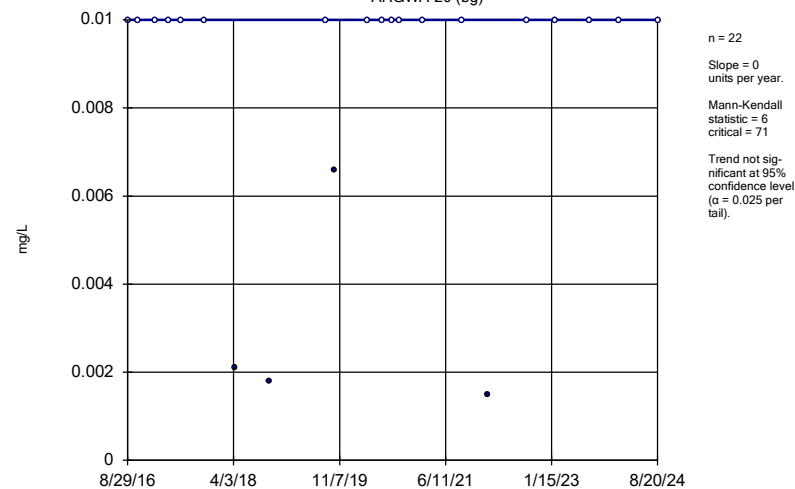
ARGWA-19 (bg)



Constituent: Lithium Analysis Run 9/27/2024 3:12 PM View: Trend Tests - App IV
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

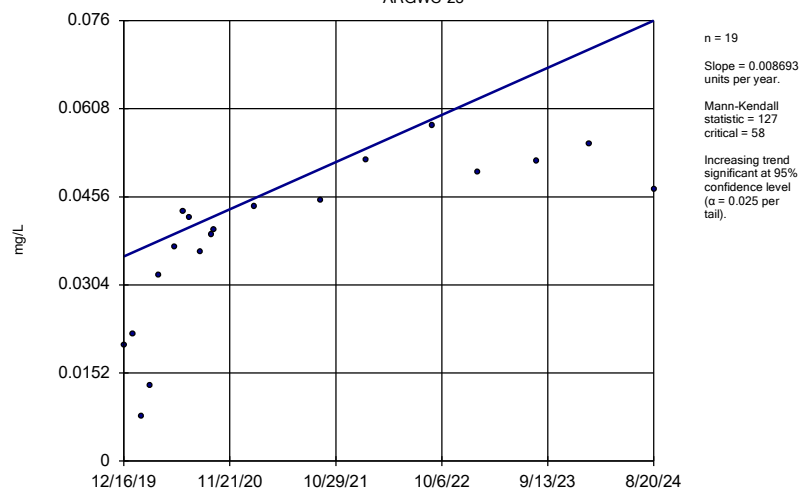
ARGWA-20 (bg)



Constituent: Lithium Analysis Run 9/27/2024 3:12 PM View: Trend Tests - App IV
Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

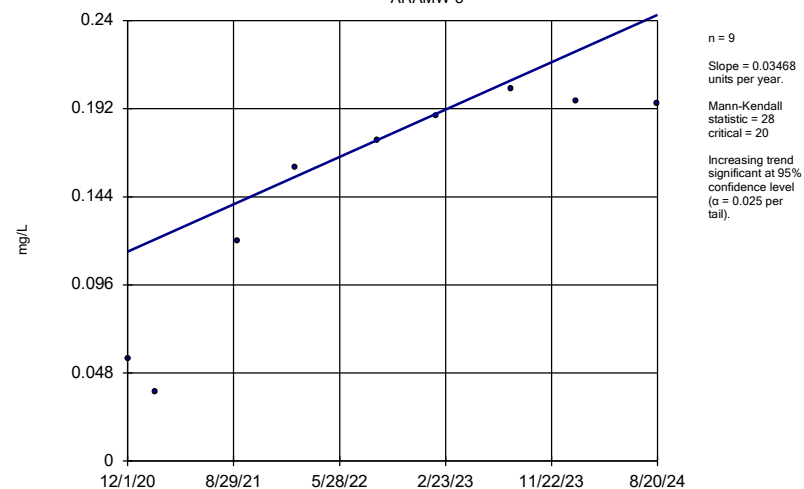
ARGWC-23



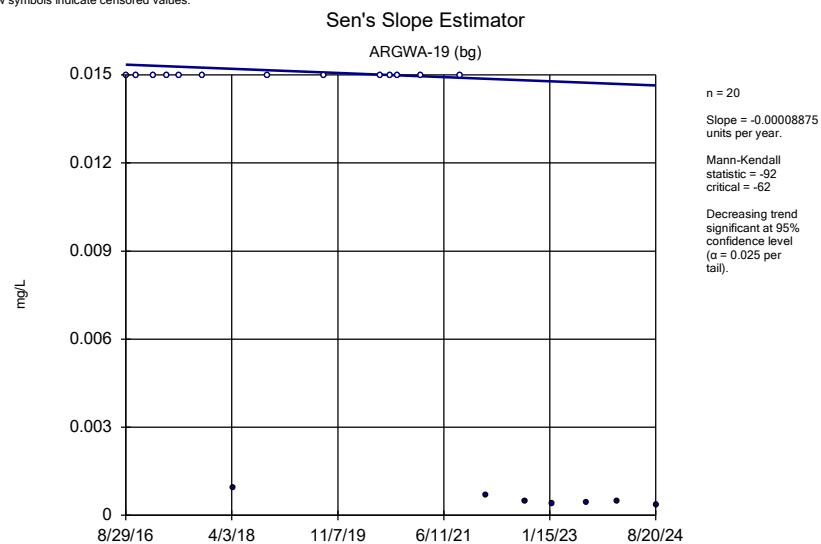
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Plant Arkwright Client: Southern Company Data: Arkwright No 2

Sen's Slope Estimator

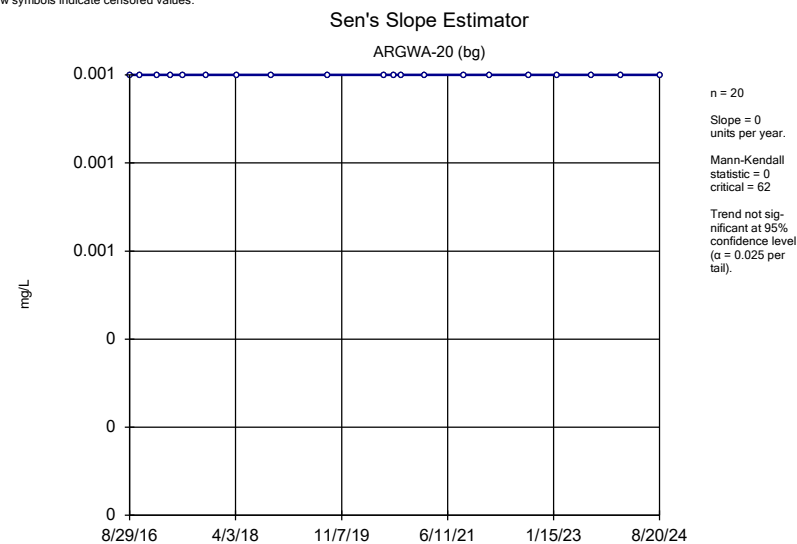
ARAMW-8



Constituent: Molybdenum Analysis Run 9/27/2024 3:12 PM View: Trend Tests - App IV
Plant Arkwright Client: Southern Company Data: Arkwright No 2



Constituent: Molybdenum Analysis Run 9/27/2024 3:12 PM View: Trend Tests - App IV
Plant Arkwright Client: Southern Company Data: Arkwright No 2



Constituent: Molybdenum Analysis Run 9/27/2024 3:12 PM View: Trend Tests - App IV
Plant Arkwright Client: Southern Company Data: Arkwright No 2