



**2024 SEMI-ANNUAL GROUNDWATER
MONITORING REPORT**

Plant Arkwright
Ash Pond 1 (AP-1) Landfill
Macon, Georgia

February 28, 2025

Prepared for:

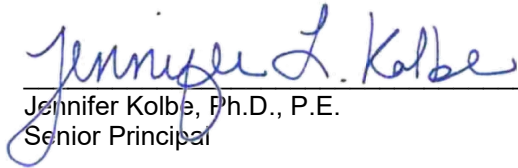


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**2024 Semi-Annual Groundwater Monitoring Report
Plant Arkwright Ash Pond 1 Landfill**

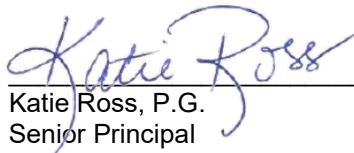
CERTIFICATION STATEMENT

This 2024 Semi-Annual Groundwater Monitoring Report, Plant Arkwright, Ash Pond 1 Landfill has been prepared in compliance with the Interim Groundwater Monitoring Plan submitted to the Georgia Environmental Protection Division on September 24, 2021. Plant Arkwright AP-1 Landfill closed according to Solid Waste Management Tracking Number 011-030D(LI) since July 30, 2010. This report has been prepared 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
Date


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Executive Summary

This summary of the *2024 Semi-Annual Groundwater Monitoring Report* provides the status of the groundwater monitoring program from July 2024 through December 2024 at the Georgia Power Company (Georgia Power) former Plant Arkwright Ash Pond 1 (AP-1) Landfill.

This summary was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of Georgia Power.

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 31-acre AP-1 Landfill is located south of the former plant area and is bordered by the Ocmulgee River, Beaverdam Creek, and a Norfolk Southern Railroad line. 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. The AP-1 Landfill received a Closure Certificate on July 30, 2010, under Solid Waste Permit Number 011-030D(LI). AP-1 Landfill is currently in post-closure care.

A coal combustion residuals (CCR) unit solid waste handling permit application, dated November 2018, was submitted to the Georgia Environmental Protection Division (GA EPD) pursuant to the requirements of Georgia Administrative Code Rule 391-3-4-.10. Per the 2018 permit submittal, Georgia Power has elected to remove CCR material from AP-1 Landfill and place it in a lined landfill. The Groundwater Monitoring Plan, Revision 1, is a minor modification to Solid Waste Permit Number 011-030D(LI) and an interim plan, as requested by GA EPD on March 23, 2021, to be used until the new CCR unit solid waste handling permit is issued and a permanent groundwater monitoring system is established for AP-1 Landfill. Monitoring and reporting utilizing the existing interim groundwater monitoring network will be conducted on a semi-annual basis in accordance with the Groundwater Monitoring Plan until CCR removal activities require the interim piezometers to be abandoned. Groundwater monitoring at AP-1 Landfill has been initiated in order to meet GA EPD requirements.

During the 2024 semi-annual reporting period, Stantec conducted one semi-annual groundwater sampling event in August 2024. Samples were analyzed for the full suites of Appendix III and Appendix IV constituents listed in Title 40, Code of Federal Regulations, Part 257.

Georgia Power will continue semi-annual groundwater monitoring and reporting at the AP-1 Landfill. Reports will be provided to GA EPD semi-annually.



Plant Arkwright Ash Pond 1 Landfill



Acronyms / Abbreviations

40 CFR	Title 40 Code of Federal Regulations
AP-1	Ash Pond 1
CCR	Coal Combustion Residuals
District	Washington Slope District
DO	Dissolved Oxygen
GA EPD	Georgia Environmental Protection Division
GEL	GEL Laboratories LLC
Georgia Power	Georgia Power Company
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 1 Landfill
Stantec	Stantec Consulting Services, Inc.
US EPA	United States Environmental Protection Agency



1.0 Introduction

This *2024 Semi-Annual Groundwater Monitoring Report* has been prepared to document groundwater monitoring activities conducted at the Georgia Power Company (Georgia Power) former Plant Arkwright Ash Pond-1 (AP-1) Landfill Site (Site).

Groundwater monitoring and reporting for Plant Arkwright AP-1 Landfill are performed in accordance with the Interim Groundwater Monitoring Plan, Revision 1 (Jacobs, 2021), submitted to Georgia Environmental Protection Division (GA EPD) on September 24, 2021. This interim plan is a minor modification to Solid Waste Permit Number 011-030D(LI), as requested by GA EPD on March 23, 2021. Per the 2018 Georgia Power Company (CCR) permit submittal, Georgia Power has elected to remove CCR material from AP-1 Landfill and place it in a lined landfill. Groundwater monitoring at the Site will be conducted in accordance with this Interim Groundwater Monitoring Plan until the new CCR unit solid waste handling permit is issued, and a permanent groundwater monitoring network is established for AP-1 Landfill. This 2024 semi-annual report documents the activities completed between July 2024 and December 2024. One groundwater monitoring event was conducted during this monitoring period in August 2024.

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 31-acre AP-1 Landfill is located south of the former plant area and is bordered by the Ocmulgee River, Beaverdam Creek, and a Norfolk Southern Railroad line (Figure 2). 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.

AP-1 Landfill was constructed prior to 1958 and was closed with 2 feet of soil cover and vegetation in 1990. Regrading and stabilization of the riverbank and creek bank occurred in two phases in 2004 and 2007. Additionally, the slopes and top of AP-1 Landfill were regraded by relocating CCR and placing additional cover soil (Jacobs, 2018).

AP-1 Landfill received a Closure Certificate on July 30, 2010, under Solid Waste Permit Number 011-030D(LI) and is currently in post-closure care. A CCR unit solid waste handling permit application package for the AP-1 Landfill was submitted to GA EPD in November 2018 and is currently under review. To continue stabilization and streambank improvement of the AP-1 Landfill slope and to reduce the steepness of the slope along the south point of the AP-1 Landfill, the south point was excavated and regraded in late 2023 under GA EPD's approval of a minor modification. CCR materials were removed and transported to a CCR Stockpile within the Landfill footprint. The CCR Stockpile as well as the south point after CCR removal was subsequently graded and covered with suitable material in accordance with permit requirements. Activities were documented in the AP-1 South Point Slope Improvement CCR Removal and Cover Certification Report, which was submitted to GA EPD on April 26, 2024.



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 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 overburden thickness ranging from 22 to 62 feet, overlying a thin layer (5 to 10 feet) of partially weathered rock (PWR) above a more competent bedrock. The underlying bedrock consists of quartzofeldspathic gneiss, hornblende gneiss, and schist (Jacobs, 2021).

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 interim piezometers were installed to evaluate the uppermost occurrence of groundwater at the Site and form the groundwater monitoring system for AP-1 Landfill (Figure 2).

Slug testing data from the Site reflects a range of hydraulic conductivities from 10^{-6} to 10^{-3} centimeters per second in the water table (overburden) hydrostratigraphic unit (Jacobs, 2021). Groundwater level gauging



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Plant Arkwright Ash Pond 1 Landfill

1.0 Introduction

data from the Site show stable water level trends, and the potentiometric surface map depicts groundwater flowing to the east, southeast, and northeast, in the direction of the Ocmulgee River and Beaverdam Creek (Figure 3).

1.3 Groundwater Monitoring System

Georgia Power installed a temporary groundwater monitoring system within the uppermost aquifer at the Site. Wells and piezometers were located to serve as upgradient or downgradient monitoring points based on the groundwater flow direction (Table 1). The well and piezometer locations are depicted in Figure 2. Due to access constraints and safety concerns, downgradient piezometers at AP-1 Landfill were installed through CCR and will be removed during the closure by removal of the unit. A permanent groundwater monitoring system will be established following closure as noted in the 2018 CCR permit application.



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 and piezometers in the monitoring network depicted in Figure 2. In accordance with 40 CFR § 257.93, Table 2 presents a summary of the groundwater sampling events completed for AP-1 Landfill during this monitoring period.

2.1 Well and Piezometer Maintenance

Wells and piezometers 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)). Well inspection forms are included in Appendix A. In August 2024, the wells and piezometers were inspected. There was no need for corrective actions for the wells or piezometers at AP-1 Landfill during this reporting period, as documented in Appendix A.

2.2 Surface Water Sampling

Due to the close proximity of Beaverdam Creek and the Ocmulgee River in the downgradient direction, Georgia Power proactively collected surface water samples. Surface water samples were collected from four locations along the Ocmulgee River and two locations along Beaverdam Creek in August 2024, as shown on Figure 2.

Surface water samples were analyzed for the full suites of 40 CFR Part 257 Appendix III and 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. Georgia Power will continue collecting the surface water samples semi-annually during interim groundwater monitoring.



3.0 Sample Methodology & Analyses

The semi-annual groundwater sampling event completed in August 2024 for AP-1 Landfill included sampling for the constituents listed in 40 CFR Part 257 Appendix III and Appendix IV. Groundwater analytical data and chain-of-custody records are located in Appendix B. The following sections describe methods used to conduct groundwater monitoring activities at AP-1.

3.1 Groundwater Elevation Measurements and Flow Direction

Prior to each sampling event, the static groundwater levels were measured in each well and piezometer at AP-1 Landfill. The water level indicator was properly decontaminated between each measurement. Groundwater elevations are summarized in Table 3. The recorded groundwater levels were used to determine the groundwater elevations in each piezometer and develop a potentiometric surface contour map (Figure 3). Review of the figure indicates that the apparent groundwater flow direction in the uppermost aquifer is to the east, southeast, and northeast, in the direction of the Ocmulgee River and Beaverdam Creek. This groundwater flow pattern is generally consistent with historical groundwater flow patterns.

3.2 Groundwater Gradient and Flow Velocity

The groundwater flow velocity at AP-1 Landfill 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-1 Landfill based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 for silty sand (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 velocities ranged from 0.0051 feet/day in the southern portion of the Site to 0.15 feet/day in the northeastern portion of the Site (1.9 and 54 feet/year, respectively) on August 19, 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. Sampling procedures were conducted in accordance with U.S. Environmental Protection Agency (US EPA) Region 4 *Laboratory Services and Applied Science Division Operating Procedures for Groundwater Sampling* (LSASDPROC-301-R6, April 22, 2023). Wells and piezometers 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 consecutive readings measured at 5-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. 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 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 suites of 40 CFR Part 257 Appendix III and 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 40 CFR Part 257 Appendix III and Appendix IV constituents. Laboratory analyses of the groundwater were performed by GEL, which is accredited by the National



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3.0 Sample Methodology & Analyses

Environmental Laboratory Accreditation Program (NELAP) and maintains the NELAP accreditation for the constituents analyzed for this project. Table 5 summarizes the groundwater analytical results for August 2024, and the corresponding formal analytical reports are in Appendix B.

The August 2024 surface water samples were also analyzed for 40 CFR Part 257 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 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.



4.0 Groundwater and Surface Water Results

The analytical data for the 40 CFR Part 257 Appendix III and IV constituents for the August 2024 groundwater monitoring event and surface water sampling event are summarized in Table 5 and Table 6, respectively. The complete laboratory reports and field data sheets are included in Appendix B.



5.0 Monitoring Program Status

The AP-1 Landfill is currently in post-closure care. Groundwater monitoring has been initiated at the request of GA EPD. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be submitted to the GA EPD semi-annually.



6.0 Conclusions & Future Actions

This *2024 Semi-Annual Groundwater Monitoring Report* was prepared to fulfill the requirements of the Interim Groundwater Monitoring Plan (Jacobs, 2021). The AP-1 Landfill piezometers, monitoring wells, and surface water sampling locations were sampled in August 2024. The next semi-annual sampling event is scheduled for February 2025. The February 2025 semi-annual monitoring event will include sampling and analysis of the full suites of 40 CFR Part 257 Appendix III and IV constituents.



7.0 References

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TABLES



TABLE 1
SUMMARY OF PIEZOMETER CONSTRUCTION
Georgia Power Company - Plant Arkwright
AP-1 Landfill
Macon, Georgia

Well	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (feet NAVD88) ⁽²⁾	Ground Surface Elevation (feet NAVD88) ⁽²⁾	Top of Screen Elevation (feet NAVD88) ⁽³⁾	Bottom of Screen Elevation (feet NAVD88) ⁽³⁾	Screen Length (feet)	Groundwater Zone Screened	Hydraulic Location
AP1GWA-1	4/20/2018	1066048.91	2439462.98	345.44	342.28	318.6	308.6	10.0	Overburden/ Bedrock	Upgradient
AP1GWA-2	4/20/2018	1065095.10	2439623.37	341.42	338.55	320.9	310.9	10.0	Overburden/ Bedrock	Upgradient
AP1PZ-1	5/1/2021	1062799.79	2440164.34	338.97	335.92	261.9	251.9	10.0	Overburden/ Bedrock	Downgradient
AP1PZ-2	5/2/2021	1062573.21	2440300.14	339.58	336.64	287.5	277.5	10.0	Bedrock	Downgradient
AP1PZ-3	5/4/2021	1062286.28	2440387.36	338.57	335.50	281.7	271.7	10.0	Overburden/ Bedrock	Downgradient
AP1PZ-4	5/11/2021	1061989.86	2440520.65	338.36	334.98	281.4	271.4	10.0	Overburden	Downgradient
AP1PZ-5	5/13/2021	1061645.61	2440599.18	339.81	336.61	283.1	273.1	10.0	Overburden	Downgradient
AP1PZ-6*	5/13/2021	1061273.40	2440714.78	347.56	344.25	285.4	275.4	10.0	Overburden/PWR	Downgradient
AP1PZ-7	5/15/2021	1061483.62	2440573.47	340.91	337.56	273.7	263.7	10.0	Overburden	Downgradient
AP1PZ-8	5/16/2021	1061721.72	2440362.39	338.31	334.94	282.7	272.7	10.0	Overburden/PWR	Downgradient
AP1PZ-9	5/17/2021	1062083.33	2440187.59	337.62	334.14	291.4	281.4	10.0	Bedrock	Downgradient
AP1PZ-10	5/19/2021	1062334.74	2440116.05	338.38	335.07	292.4	282.4	10.0	Bedrock	Downgradient
AP1PZ-11	5/26/2021	1062615.94	2440044.48	338.98	335.78	276.2	266.2	10.0	Overburden	Downgradient

Notes:

1. Horizontal locations were referenced to Georgia State Plane West, North American Datum of 1983 (NAD 83).
2. Elevations are feet referenced to North American Vertical Datum of 1988 (NAVD 88).
3. Screen elevations were calculated using total depth and length of bottom sump.
4. PWR indicates Partially Weathered Rock.
5. * = Abandoned. AP1PZ-6 was abandoned on June 21, 2023.

TABLE 2
GROUNDWATER SAMPLING EVENT SUMMARY
Georgia Power Company - Plant Arkwright
AP-1 Landfill
Macon, Georgia

Well ID	Hydraulic Location	Summary of Sampling Event
		August 19, 2024
Purpose of Sampling Event		Monitoring
AP-1 LANDFILL INTERIM MONITORING WELL NETWORK		
AP1GWA-1	Upgradient	X
AP1GWA-2	Upgradient	X
AP1PZ-1	Downgradient	X
AP1PZ-2	Downgradient	X
AP1PZ-3	Downgradient	X
AP1PZ-4	Downgradient	X
AP1PZ-5	Downgradient	X
AP1PZ-7	Downgradient	X
AP1PZ-8	Downgradient	X
AP1PZ-9	Downgradient	X
AP1PZ-10	Downgradient	X
AP1PZ-11	Downgradient	X

Notes:

X - Indicates well sampled during event

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS
Georgia Power Company - Plant Arkwright
AP-1 Landfill
Macon, Georgia

Well ID	Top of Casing Elevation (feet NAVD88) ⁽¹⁾	Depth to Water (feet below TOC) ⁽²⁾	Groundwater Elevation (feet NAVD88) ⁽¹⁾
Measurement Date		August 19, 2024	
AP1GWA-1	345.44	26.40	319.04
AP1GWA-2	341.42	18.57	322.85
AP1PZ-1	338.97	45.61	293.36
AP1PZ-2	339.58	43.02	296.56
AP1PZ-3	338.57	41.26	297.31
AP1PZ-4	338.36	47.81	290.55
AP1PZ-5	339.81	49.44	290.37
AP1PZ-7	340.91	50.92	289.99
AP1PZ-8	338.31	47.34	290.97
AP1PZ-9	337.62	42.29	295.33
AP1PZ-10	338.38	40.19	298.19
AP1PZ-11	338.98	40.19	298.79

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
AP-1 Landfill
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	AP1PZ-10 to AP1PZ-5	298.19	290.37	7.82	842	0.009	0.11	0.20	0.0051	1.9
	AP1PZ-11 to AP1PZ-1	298.79	293.36	5.43	222	0.024	1.20	0.20	0.15	54

Notes:

1. The geometric mean of the in-situ hydraulic conductivity (K) slug test values for AP1PZ-10 and AP1PZ-5 used for AP1PZ-10 to AP1PZ-5 calculation; the slug test K value for AP1PZ-11 used for the AP1PZ-11 to AP1PZ-1 calculation.
2. Effective porosity of 20% was selected for the silty sands/sandy silts overburden based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979.

TABLE 5
ANALYTICAL DATA SUMMARY - GROUNDWATER, AUGUST 2024
Georgia Power Company - Plant Arkwright
AP-1 Landfill
Macon, Georgia

Sample Location		AP1GWA-1	AP1GWA-2	AP1PZ-1	AP1PZ-2	AP1PZ-3	AP1PZ-4	AP1PZ-5	AP1PZ-7	AP1PZ-8	AP1PZ-9	AP1PZ-10	AP1PZ-11
Sample Date		08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024	08/19/2024
ANALYTE	UNITS												
APPENDIX III													
Boron	mg/L	0.116	0.0505	0.382	0.421	1.53	4.01	7.14	3.38	2.94	0.729	0.366	0.152
Calcium	mg/L	17.4	6.58	32.6	177	392	395	606	364	315	67.8	86.4	24.7
Chloride	mg/L	1.80	2.13	2.33	3.37	5.61	5.64	9.55	6.81	3.55	4.57	9.67	1.33
Fluoride	mg/L	0.333	0.0788 J	0.0960 J	0.0687 J	0.112	0.209	0.320	0.167	0.274	0.795	0.464	0.106
pH, Field	SU	5.55	6.09	6.4	6.08	5.59	6.29	6.08	6.26	6.72	4.48	6.37	6.8
Sulfate	mg/L	55.2	0.982	111	703	1390	1450	2140	1400	732	328	253	42.3
TDS	mg/L	149	57.0	231	1060	2020	2200	3060	2230	1380	541	514	515
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	0.00272 J	0.00434 J	0.00288 J	0.00221 J	< 0.00200	0.00267 J	< 0.00200
Barium	mg/L	0.0515	0.0403	0.0358	0.0233	0.0207	0.0308	0.0340	0.0285	0.0371	0.0212	0.0302	0.0194
Beryllium	mg/L	0.00212	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	0.000558	< 0.000200	< 0.000200
Cadmium	mg/L	0.000367 J	< 0.000300	< 0.000300	0.000403 J	0.00537	< 0.000300	< 0.000300	< 0.000300	0.000322 J	0.00118	< 0.000300	< 0.000300
Chromium	mg/L	0.00445 J	0.00345 J	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300
Cobalt	mg/L	0.00662	0.00177	0.000733 J	0.102	0.0561	0.000625 J	0.0890	0.00141	0.000544 J	0.102	0.000895 J	< 0.000300
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	0.0112	< 0.00300	0.00458 J	0.0184	0.0632	0.00642 J	0.414	< 0.00300	0.00468 J	0.143	0.0186	< 0.00300
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	< 0.000200	< 0.000200	0.000419 J	< 0.000200	0.000272 J	0.00402	0.0375	0.00173	0.712	< 0.000200	0.00163	0.000492 J
Combined Radium 226 + 228	pCi/L	2.77	2.77	1.91 U	2.04	4.91	0 U	4.26	1.46 U	0.809 U	3.57	0.528 U	0.314 U
Selenium	mg/L	0.00316 J	< 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

- Results for constituents are reported in milligrams per liter (mg/L). pH values are reported in standard units (s.u.)
- Radium results are reported in picocuries per liter (pCi/L).
- < indicates the constituent was not detected above the analytical method detection limit (MDL) shown.
- J indicates 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.
Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
- TDS indicates total dissolved solids.
- U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.

TABLE 6
ANALYTICAL DATA SUMMARY - SURFACE WATER, AUGUST 2024
Georgia Power Company - Plant Arkwright
AP-1 Landfill
Macon, GA

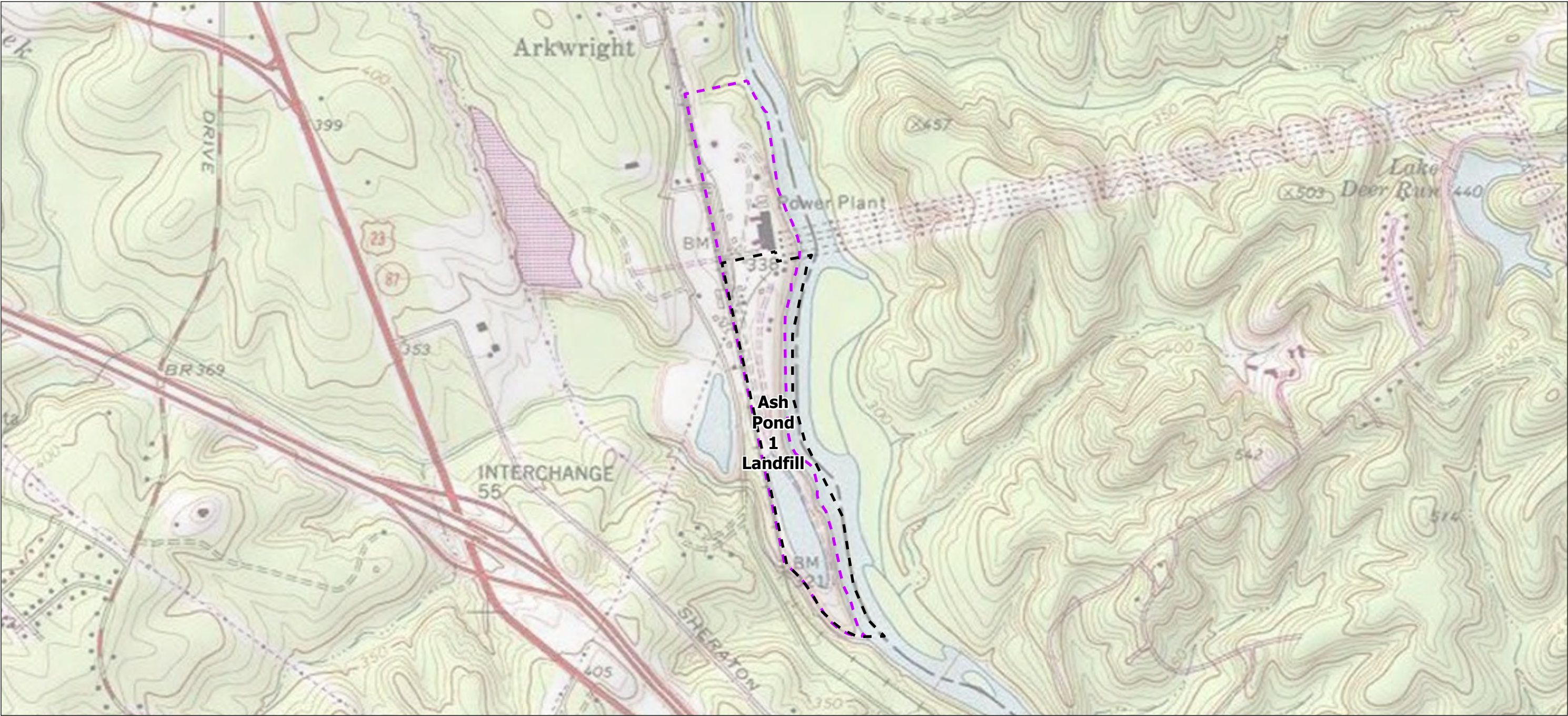
Sample Location		OR-0.8	OR-0.3	OR-0.1	OR+0.25	BC-0.3	BC-0.1
Sample Date		08/13/2024	08/13/2024	08/13/2024	08/13/2024	08/12/2024	08/12/2024
ANALYTE	UNITS						
APPENDIX III							
Boron	mg/L	0.059	0.057	0.056	0.057	< 0.040	0.051
Calcium	mg/L	6.4	6.1	6.2	6.2	11.5	15.1
Chloride	mg/L	7.7	7.7	7.7	7.8	7.5	7.5
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
pH, Field	SU	7.91	7.86	7.81	7.38	7.47	7.57
Sulfate	mg/L	9.4	9.4	9.5	9.5	7.6	14.7
TDS	mg/L	88.0	73.0	74.0	57.0	135	120
APPENDIX IV							
Antimony	mg/L	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Barium	mg/L	0.018	0.013	0.041	0.034	0.048	0.014
Beryllium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Cadmium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Chromium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cobalt	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Combined Radium 226 + 228	pCi/L	0.401 U	0.124 U	0.159 U	0 U	0.106 U	0 U
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Lead	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Lithium	mg/L	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030
Mercury	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Molybdenum	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Selenium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Thallium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Additional Analytes							
Alkalinity Total as CaCO3	mg/L	29.8	29.7	30.0	30.4	55.7	59.3
Bicarbonate Alkalinity as CaCO3	mg/L	29.8	29.7	30.0	30.4	55.7	59.3
Magnesium	mg/L	2.2	2.1	2.1	2.1	4.9	6.1
Potassium	mg/L	3.3	3.1	3.1	3.1	2.3	2.8
Sodium	mg/L	10.1	9.6	9.6	9.8	8.5	9.3

Notes:

1. Results for constituents are reported in milligrams per liter (mg/L). pH values are reported in standard units (s.u.)
2. Radium results are reported in picocuries per liter (pCi/L).
3. < indicates the constituent was not detected above the analytical method detection limit (MDL)
4. TDS indicates total dissolved solids.

FIGURES





Notes
1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
2. Data Sources: Tax Parcel and AP-1 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
--- Ash Pond 1 Landfill Permit Boundary
--- Ash Pond 1 Tax Parcel

0 1,000 2,000 Feet
(At original document size of 11x17)
1:12,000



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 Report
Plant Arkwright Ash Pond 1 Landfill

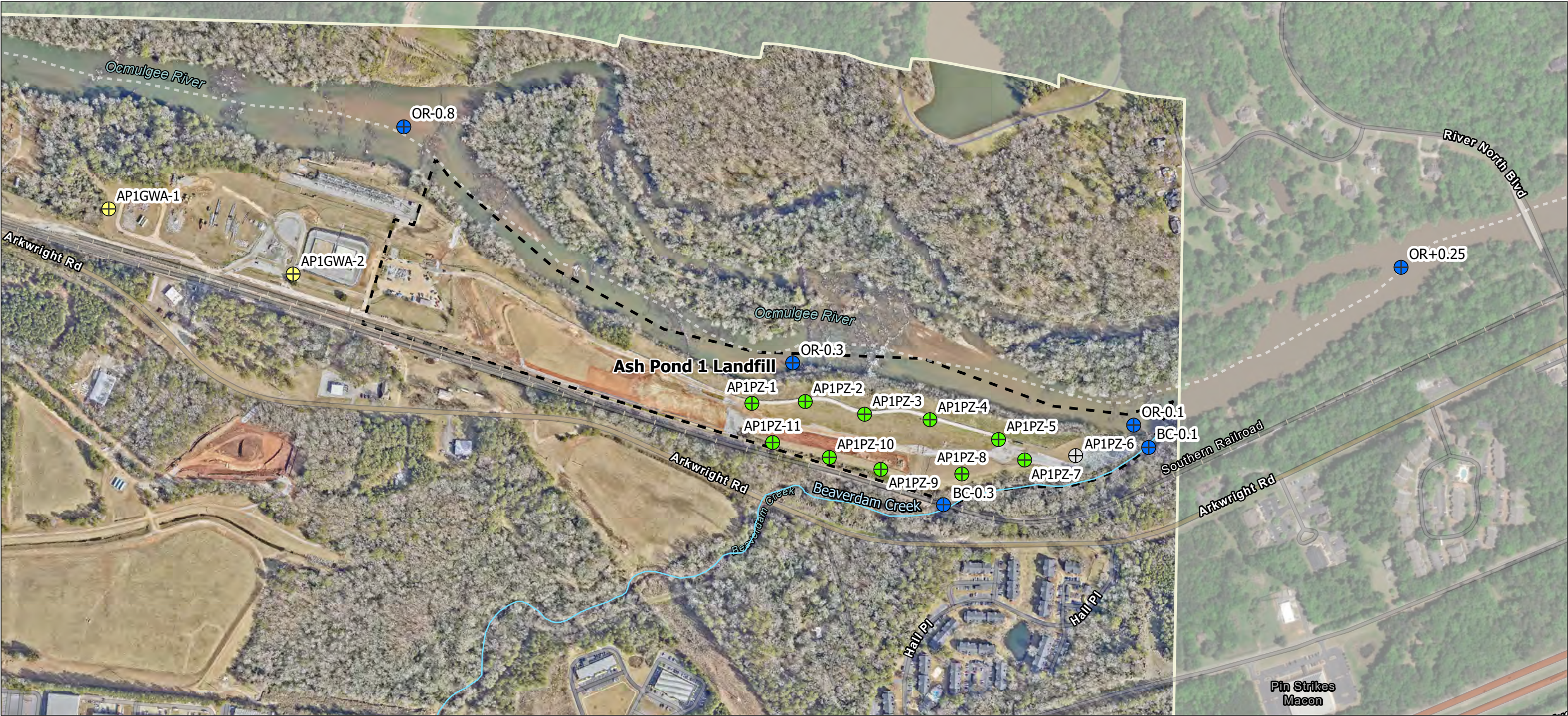
175569434

Figure No.

1

Title

Site Location Map



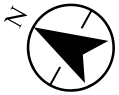
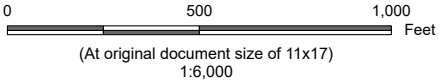
- Legend
- Piezometer
 - Well
 - Abandoned Piezometer
 - Surface Water Sampling Location
 - Beaverdam Creek
 - Ash Pond 1 Landfill Permit Boundary
 - Limit of Client Imagery (dated 1/22/2024)

Notes

1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet

2. Data Sources: AP-1 Boundary, Surface Water Samples, Piezometers, and Beaverdam Creek locations provided by Southern Company Services and Wood Environment & Infrastructure Solutions

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



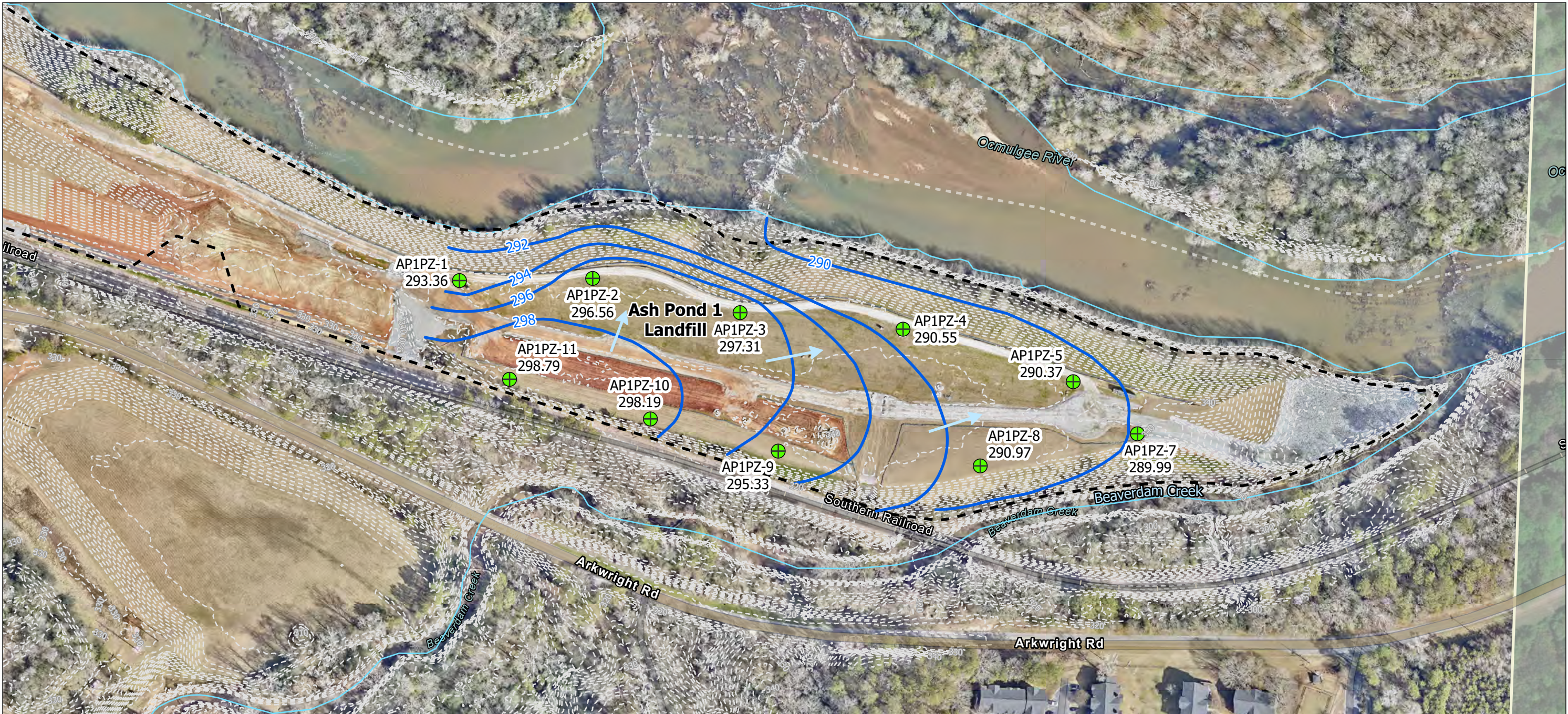
Project Location
Macon, Georgia

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 Report
Plant Arkwright Ash Pond 1 Landfill

Figure No.
2

Title
**Piezometer and Surface Water
Sample Locations Map**



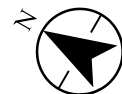
Notes
1. Coordinate System: NAD 1983 StatePlane Georgia West FIPS 1002 Feet
2. Data Sources: AP-1 Boundary, Piezometers, Topography, and Beaverdam Creek provided by Southern Company Services and Wood Environment & Infrastructure Solutions; Groundwater Contours, Flow Arrow, and Ocmulgee River provided 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**
- Piezometer Location
 - Interpreted Groundwater Flow Direction
 - Potentiometric Surface Contour (feet (ft) NAVD88)
 - Beaverdam Creek/Ocmulgee River (Approximate)
 - Topographic Contour 2024 (2 ft interval)
 - Approximate Limits of Ash Pond 1 Landfill
 - Limit of Client Imagery (dated 1/22/2024)

293.36 Groundwater Elevation (ft NAVD88)
AP1GWA-1 and AP1GWA-2 not included in contouring
NAVD88 - North American Vertical Datum of 1988



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 Report
Plant Arkwright Ash Pond 1 Landfill

Figure No.
3

Title
**Potentiometric Surface Contour Map
Ash Pond 1 Landfill - August 19, 2024**

APPENDIX A

Well Inspections



	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-1									
AP1GWA-1	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1GWA-2	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-1	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-2	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-3	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-4	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-5	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-7	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-8	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-9	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-10	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
AP1PZ-11	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes

Completed by ZL 08/19
Checked by AS 08/20

	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-1							
AP1GWA-1	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1GWA-2	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-1	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-2	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-3	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-4	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-5	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-7	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-8	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-9	Yes	Yes	Yes	Yes	Yes	Yes	NA
AP1PZ-10	Yes	Yes	Yes	Yes	Yes	Yes	No action needed, but estern most bollard has been struck by equipment and is leaning slightly
AP1PZ-11	Yes	Yes	Yes	Yes	Yes	Yes	NA

APPENDIX B

Field Sampling Data and Analytical Data Reports



B.1 Field Sampling Data



Low-Flow Test Report:

Test Date / Time: 8/19/2024 11:49:59 AM
Project: Arkwright
Operator Name: Z Levy

Location Name: AP1GWA-1 Latitude: 32.94351958999998 Longitude: -83.70780180999998 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 26.84 ft Total Depth: 37.5 ft Initial Depth to Water: 26.36 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 31.8 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.19 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989619
---	---	--

Test Notes:
MP50 sn:21
ID: 104
CPM:4
Psi:25

Weather Conditions:
Clear, 84 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	+/- 0.33	
8/19/2024 11:49 AM	00:00	5.61 pH	23.96 °C	186.03 µS/cm	3.23 mg/L	3.72 NTU	188.0 mV	26.53 ft	300.00 ml/min
8/19/2024 11:54 AM	05:00	5.59 pH	22.34 °C	190.85 µS/cm	3.28 mg/L	2.32 NTU	136.3 mV	26.54 ft	300.00 ml/min
8/19/2024 11:59 AM	10:00	5.58 pH	22.05 °C	190.71 µS/cm	3.26 mg/L	1.83 NTU	129.0 mV	26.55 ft	300.00 ml/min
8/19/2024 12:04 PM	15:00	5.57 pH	22.16 °C	190.73 µS/cm	3.22 mg/L	2.10 NTU	128.0 mV	26.55 ft	300.00 ml/min
8/19/2024 12:09 PM	20:00	5.55 pH	22.20 °C	192.36 µS/cm	3.27 mg/L	2.04 NTU	128.0 mV	26.55 ft	300.00 ml/min

Samples

Sample ID:	Description:
------------	--------------

ARK-AP1GWA-1	@ 1215 6 bottles Metals Radium TDS Anions
ARK-AP1-EB-01	@ 1200 6 bottles Metals Radium TDS Anions

Low-Flow Test Report:

Test Date / Time: 8/19/2024 12:20:03 PM
Project: Arkwright
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1, AP1GWA-2 Latitude: 32.9273346601797 Longitude: -83.7005548551679 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 20.52 ft Total Depth: 31.1 ft Initial Depth to Water: 18.56 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 25.3 ft Estimated Total Volume Pumped: 8280 ml Flow Cell Volume: 90 ml Final Flow Rate: 400 ml/min Final Draw Down: 0.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080302
---	--	---

Test Notes:
Heron Dipper-T SN: 11DF2206171HB
MP-50 SN: 12
ID: 103
Pressure: 35 psi

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	
8/19/2024 12:20 PM	00:00	6.11 pH	22.07 °C	80.43 µS/cm	3.51 mg/L	3.57 NTU	61.3 mV	18.60 ft	400.00 ml/min
8/19/2024 12:25 PM	05:00	6.10 pH	22.04 °C	82.07 µS/cm	3.33 mg/L	3.59 NTU	49.8 mV	18.60 ft	400.00 ml/min
8/19/2024 12:30 PM	10:00	6.10 pH	22.13 °C	83.56 µS/cm	3.20 mg/L	2.95 NTU	43.7 mV	18.60 ft	400.00 ml/min
8/19/2024 12:35 PM	15:42	6.08 pH	22.22 °C	84.24 µS/cm	3.06 mg/L	1.91 NTU	40.8 mV	18.60 ft	400.00 ml/min
8/19/2024 12:40 PM	20:42	6.09 pH	22.19 °C	84.79 µS/cm	2.95 mg/L	1.93 NTU	36.6 mV	18.60 ft	400.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1GWA-2	Time: 1245 6 bottles: Metals, Anions, TDS, Radium
ARK-AP1-FD-01	6 bottles: Metals, Anions, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 8/19/2024 12:23:34 PM
Project: Arkwright
Operator Name: J. Bankston

Location Name: AP1PZ-1 Latitude: 32.92105030292518 Longitude: -83.69877563874955 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 77 ft Total Depth: 87.6 ft Initial Depth to Water: 45.62 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 82.6 ft Estimated Total Volume Pumped: 5500 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 1.07 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080306
---	---	---

Test Notes:
MP-50 SN/23 Heron 11DDF2206168HB
ID: 43
80 PSI

Weather Conditions:
Sunny

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	
8/19/2024 12:23 PM	00:00	6.42 pH	23.11 °C	345.05 µS/cm	0.79 mg/L	2.11 NTU	125.3 mV	45.67 ft	100.00 ml/min
8/19/2024 12:28 PM	05:00	6.42 pH	23.37 °C	331.11 µS/cm	0.45 mg/L	1.56 NTU	95.6 mV	45.86 ft	100.00 ml/min
8/19/2024 12:33 PM	10:00	6.42 pH	23.15 °C	331.11 µS/cm	0.44 mg/L	1.52 NTU	86.0 mV	45.96 ft	100.00 ml/min
8/19/2024 12:38 PM	15:00	6.42 pH	23.71 °C	330.00 µS/cm	0.50 mg/L	1.26 NTU	85.2 mV	46.12 ft	100.00 ml/min
8/19/2024 12:43 PM	20:00	6.41 pH	23.82 °C	330.19 µS/cm	0.51 mg/L	0.92 NTU	102.2 mV	46.24 ft	100.00 ml/min
8/19/2024 12:48 PM	25:00	6.40 pH	23.90 °C	329.86 µS/cm	0.53 mg/L	0.82 NTU	86.2 mV	46.29 ft	100.00 ml/min
8/19/2024 12:53 PM	30:00	6.41 pH	23.96 °C	329.80 µS/cm	0.55 mg/L	1.11 NTU	102.8 mV	46.34 ft	100.00 ml/min
8/19/2024 12:58 PM	35:00	6.41 pH	23.89 °C	329.37 µS/cm	0.53 mg/L	0.93 NTU	85.8 mV	46.41 ft	100.00 ml/min
8/19/2024 1:03 PM	40:00	6.40 pH	24.14 °C	329.66 µS/cm	0.54 mg/L	0.80 NTU	83.6 mV	46.49 ft	100.00 ml/min
8/19/2024 1:08 PM	45:00	6.41 pH	23.87 °C	329.47 µS/cm	0.54 mg/L	0.84 NTU	100.2 mV	46.56 ft	100.00 ml/min
8/19/2024 1:13 PM	50:00	6.40 pH	24.04 °C	328.70 µS/cm	0.54 mg/L	1.00 NTU	83.7 mV	46.62 ft	100.00 ml/min
8/19/2024 1:18 PM	55:00	6.40 pH	24.01 °C	329.06 µS/cm	0.53 mg/L	1.00 NTU	98.7 mV	46.69 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1PZ-1	@13:25 6 bottles, Metals, radiologicals, TDS, anions
ARK-AP1-FB-01	@1330 6 bottles, metals, radiologicals, TDS,anions

Low-Flow Test Report:

Test Date / Time: 8/19/2024 2:35:39 PM
Project: Arkwright
Operator Name: J. Bankston

Location Name: AP1PZ-2 Latitude: 32.917142058897994 Longitude: -83.6995553144166 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 52.1 ft Total Depth: 62.7 ft Initial Depth to Water: 42.97 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 56.6 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.37 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080306
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Test Notes:
MP-50 SN: 23,
ID: 43
65 PSI
Heron SN 11DF2206168HB

Weather Conditions:
Sunny, 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	+/- 0.3	
8/19/2024 2:35 PM	00:00	6.15 pH	24.01 °C	1,024.0 µS/cm	0.83 mg/L	23.10 NTU	130.5 mV	43.14 ft	100.00 ml/min
8/19/2024 2:40 PM	05:00	6.17 pH	24.67 °C	1,021.1 µS/cm	0.37 mg/L	22.50 NTU	121.9 mV	43.41 ft	100.00 ml/min
8/19/2024 2:45 PM	10:00	6.17 pH	24.78 °C	1,022.5 µS/cm	0.28 mg/L	20.90 NTU	90.5 mV	43.42 ft	100.00 ml/min
8/19/2024 2:50 PM	15:00	6.16 pH	24.86 °C	1,033.6 µS/cm	0.26 mg/L	15.90 NTU	93.1 mV	43.30 ft	100.00 ml/min
8/19/2024 2:55 PM	20:00	6.15 pH	24.90 °C	1,054.3 µS/cm	0.24 mg/L	11.80 NTU	68.5 mV	43.27 ft	100.00 ml/min
8/19/2024 3:00 PM	25:00	6.14 pH	24.83 °C	1,072.0 µS/cm	0.24 mg/L	4.28 NTU	73.5 mV	43.33 ft	100.00 ml/min
8/19/2024 3:05 PM	30:00	6.13 pH	24.82 °C	1,083.9 µS/cm	0.24 mg/L	4.88 NTU	65.7 mV	43.33 ft	100.00 ml/min
8/19/2024 3:10 PM	35:00	6.12 pH	24.98 °C	1,102.9 µS/cm	0.23 mg/L	6.11 NTU	66.1 mV	43.33 ft	100.00 ml/min
8/19/2024 3:15 PM	40:00	6.09 pH	25.20 °C	1,137.6 µS/cm	0.25 mg/L	5.69 NTU	71.5 mV	43.41 ft	100.00 ml/min
8/19/2024 3:20 PM	45:00	6.09 pH	24.75 °C	1,144.1 µS/cm	0.22 mg/L	5.59 NTU	70.4 mV	43.34 ft	100.00 ml/min
8/19/2024 3:25 PM	50:00	6.08 pH	24.91 °C	1,155.0 µS/cm	0.21 mg/L	4.79 NTU	81.4 mV	43.35 ft	100.00 ml/min

8/19/2024 3:30 PM	55:00	6.08 pH	24.69 °C	1,163.0 µS/cm	0.21 mg/L	4.79 NTU	74.0 mV	43.36 ft	100.00 ml/min
8/19/2024 3:35 PM	01:00:00	6.08 pH	24.77 °C	1,167.1 µS/cm	0.20 mg/L	3.80 NTU	84.1 mV	43.34 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1PZ-2	Sample Time: 1540; 6 bottles: Metals, Anions, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 8/19/2024 4:36:29 PM
Project: Arkwright
Operator Name: J. Bankston

Location Name: AP1PZ-3 Latitude: 32.91961996028794 Longitude: -83.69801408706404 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 56.9 ft Total Depth: 67.4 ft Initial Depth to Water: 43.95 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 61.4 ft Estimated Total Volume Pumped: 4500 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.25 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080306
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Test Notes:
MP-50 SN: 23,
ID: 43
60 PSI
Heron dipper-T SN 11DF2206168HB

Weather Conditions:
Sunny 90F

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	
8/19/2024 4:36 PM	00:00	5.55 pH	25.14 °C	2,038.9 µS/cm	1.60 mg/L	3.12 NTU	176.0 mV	44.14 ft	100.00 ml/min
8/19/2024 4:41 PM	05:00	5.58 pH	24.77 °C	2,049.4 µS/cm	0.98 mg/L	1.40 NTU	158.0 mV	44.14 ft	100.00 ml/min
8/19/2024 4:46 PM	10:00	5.58 pH	25.16 °C	2,061.5 µS/cm	0.77 mg/L	1.31 NTU	152.8 mV	44.15 ft	100.00 ml/min
8/19/2024 4:51 PM	15:00	5.58 pH	25.13 °C	2,054.9 µS/cm	0.71 mg/L	0.89 NTU	148.8 mV	44.16 ft	100.00 ml/min
8/19/2024 4:56 PM	20:00	5.60 pH	24.40 °C	2,050.8 µS/cm	0.61 mg/L	1.51 NTU	161.4 mV	44.17 ft	100.00 ml/min
8/19/2024 5:01 PM	25:00	5.60 pH	24.36 °C	2,058.1 µS/cm	0.58 mg/L	0.89 NTU	160.2 mV	44.17 ft	100.00 ml/min
8/19/2024 5:06 PM	30:00	5.59 pH	24.50 °C	2,058.6 µS/cm	0.51 mg/L	0.61 NTU	158.1 mV	44.18 ft	100.00 ml/min
8/19/2024 5:11 PM	35:00	5.59 pH	24.48 °C	2,059.5 µS/cm	0.48 mg/L	0.51 NTU	157.0 mV	44.18 ft	100.00 ml/min
8/19/2024 5:16 PM	40:00	5.59 pH	24.09 °C	2,055.7 µS/cm	0.46 mg/L	0.56 NTU	154.9 mV	44.19 ft	100.00 ml/min
8/19/2024 5:21 PM	45:00	5.59 pH	24.32 °C	2,058.4 µS/cm	0.41 mg/L	1.02 NTU	154.4 mV	44.20 ft	100.00 ml/min

Samples

Sample ID:	Description:
AKR-AP1-EB-02	@1730 Sample Time: 1700; 6 bottles: Metals, Anions, TDS, Radium
ARK-AP1PZ-3	@1725 Sample Time: 1700; 6 bottles: Metals, Anions, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 8/19/2024 1:45:28 PM
Project: Arkwright
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1, AP1PZ-4 Latitude: 32.9188151770192 Longitude: -83.6975826323032 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 56.9 ft Total Depth: 67.4 ft Initial Depth to Water: 47.65 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 61.5 ft Estimated Total Volume Pumped: 2063.333 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 1.16 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080302
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Test Notes:
ID: 102
Pressure: 35 psi

Weather Conditions:
Sunny, 88F

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	
8/19/2024 1:45 PM	00:00	6.34 pH	26.92 °C	2,326.7 µS/cm	1.55 mg/L	16.60 NTU	1.4 mV	48.51 ft	100.00 ml/min
8/19/2024 1:50 PM	05:00	6.32 pH	26.72 °C	2,337.8 µS/cm	1.30 mg/L	6.98 NTU	-6.0 mV	48.62 ft	100.00 ml/min
8/19/2024 1:56 PM	10:38	6.31 pH	26.50 °C	2,333.6 µS/cm	1.04 mg/L	4.79 NTU	-12.7 mV	48.73 ft	100.00 ml/min
8/19/2024 2:01 PM	15:38	6.30 pH	25.89 °C	2,335.0 µS/cm	0.96 mg/L	3.75 NTU	-15.4 mV	48.75 ft	100.00 ml/min
8/19/2024 2:06 PM	20:38	6.29 pH	26.22 °C	2,345.9 µS/cm	0.85 mg/L	2.73 NTU	-18.7 mV	48.81 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1PZ-4	6 bottles taken at 1410: Metals, Anions, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 8/19/2024 3:30:54 PM
Project: Arkwright
Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1, AP1PZ-5 Latitude: 32.91767695474138 Longitude: -83.6973818459974 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 56.8 ft Total Depth: 67.3 ft Initial Depth to Water: 49.42 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 61.3 ft Estimated Total Volume Pumped: 3000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.9 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1080302
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Test Notes:
ID: 101
Pressure: 35 psi

Weather Conditions:
Sunny, 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	+/- 0.3	
8/19/2024 3:30 PM	00:00	6.11 pH	29.19 °C	2,898.9 µS/cm	1.67 mg/L	15.30 NTU	13.8 mV	50.15 ft	100.00 ml/min
8/19/2024 3:35 PM	05:00	6.10 pH	27.69 °C	2,965.9 µS/cm	1.55 mg/L	13.10 NTU	9.2 mV	50.22 ft	100.00 ml/min
8/19/2024 3:40 PM	10:00	6.10 pH	27.27 °C	2,955.2 µS/cm	1.33 mg/L	9.33 NTU	-3.6 mV	50.26 ft	100.00 ml/min
8/19/2024 3:45 PM	15:00	6.09 pH	27.61 °C	2,965.7 µS/cm	1.27 mg/L	6.06 NTU	-7.5 mV	50.26 ft	100.00 ml/min
8/19/2024 3:50 PM	20:00	6.09 pH	27.36 °C	2,941.8 µS/cm	1.14 mg/L	4.20 NTU	0.6 mV	50.29 ft	100.00 ml/min
8/19/2024 3:55 PM	25:00	6.08 pH	27.19 °C	2,948.6 µS/cm	1.09 mg/L	3.21 NTU	-1.5 mV	50.31 ft	100.00 ml/min
8/19/2024 4:00 PM	30:00	6.08 pH	27.15 °C	2,934.1 µS/cm	1.02 mg/L	2.41 NTU	-3.3 mV	50.32 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1PZ-5	6 bottles at 1605: Metals, Anions, TDS, Radium

Low-Flow Test Report:

Test Date / Time: 8/19/2024 12:45:04 PM
Project: Arkwright
Operator Name: J.Myer

Location Name: AP1PZ-7 Latitude: 32.9174028763597 Longitude: -83.6975306645036 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 67.3 ft Total Depth: 77.8 ft Initial Depth to Water: 50.9 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 71.8 ft Estimated Total Volume Pumped: 6500 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 3.65 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082817
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Test Notes:
MP-50 S/N: 22
ID: 45
PSI: 40
Turbidimeter S/N: 2306D000290
WL Meter S/N: T11DF2106090ML

Weather Conditions:
Sunny 86 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	
8/19/2024 12:45 PM	00:00	6.34 pH	29.32 °C	2,192.0 µS/cm	3.95 mg/L	23.20 NTU	60.8 mV	51.50 ft	100.00 ml/min
8/19/2024 12:50 PM	05:00	6.17 pH	24.44 °C	2,340.0 µS/cm	1.17 mg/L	20.40 NTU	-31.0 mV	52.05 ft	100.00 ml/min
8/19/2024 12:55 PM	10:00	6.23 pH	23.84 °C	2,328.6 µS/cm	0.92 mg/L	22.90 NTU	-30.5 mV	52.55 ft	100.00 ml/min
8/19/2024 1:00 PM	15:00	6.26 pH	23.88 °C	2,322.0 µS/cm	0.98 mg/L	20.20 NTU	-19.7 mV	52.90 ft	100.00 ml/min
8/19/2024 1:05 PM	20:00	6.27 pH	23.77 °C	2,324.4 µS/cm	1.08 mg/L	16.50 NTU	-14.8 mV	53.20 ft	100.00 ml/min
8/19/2024 1:10 PM	25:00	6.28 pH	23.56 °C	2,327.0 µS/cm	1.06 mg/L	11.70 NTU	-13.6 mV	53.50 ft	100.00 ml/min
8/19/2024 1:15 PM	30:00	6.28 pH	23.54 °C	2,323.6 µS/cm	1.02 mg/L	9.69 NTU	-14.1 mV	53.70 ft	100.00 ml/min
8/19/2024 1:20 PM	35:00	6.27 pH	23.61 °C	2,318.3 µS/cm	0.96 mg/L	8.70 NTU	-21.3 mV	53.90 ft	100.00 ml/min
8/19/2024 1:25 PM	40:00	6.27 pH	23.38 °C	2,303.7 µS/cm	0.91 mg/L	6.78 NTU	-24.6 mV	54.10 ft	100.00 ml/min
8/19/2024 1:30 PM	45:00	6.27 pH	23.28 °C	2,299.4 µS/cm	0.86 mg/L	5.75 NTU	-29.7 mV	54.20 ft	100.00 ml/min

8/19/2024 1:35 PM	50:00	6.27 pH	23.16 °C	2,311.4 µS/cm	0.82 mg/L	5.29 NTU	-31.9 mV	54.35 ft	100.00 ml/min
8/19/2024 1:40 PM	55:00	6.27 pH	23.29 °C	2,305.5 µS/cm	0.78 mg/L	4.34 NTU	-35.2 mV	54.45 ft	100.00 ml/min
8/19/2024 1:45 PM	01:00:00	6.27 pH	23.43 °C	2,295.0 µS/cm	0.75 mg/L	3.81 NTU	-80.6 mV	54.55 ft	100.00 ml/min
8/19/2024 1:50 PM	01:05:00	6.26 pH	23.49 °C	2,281.2 µS/cm	0.72 mg/L	3.71 NTU	-49.1 mV	54.55 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1PZ-7	6 bottles filled at 13:55 3 Ra-226/Ra-228 1 TDS 1 Anions 1 Metals
ARK-AP1-FB-02	6 bottles filled at 1410 3 Ra-226/Ra-228 1 TDS 1 Anions 1 Metals

Low-Flow Test Report:

Test Date / Time: 8/19/2024 2:26:17 PM
Project: Arkwright
Operator Name: Z Levy

Location Name: AP1PZ-8 Latitude: 32.91808786722509 Longitude: -83.69813443387478 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 55.6 ft Total Depth: 66.1 ft Initial Depth to Water: 47.25 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 59 ft Estimated Total Volume Pumped: 10000 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 4.56 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989619
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Test Notes:
CPM:4
ID: 102
PSI: 40

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	
8/19/2024 2:26 PM	00:00	6.62 pH	26.16 °C	1,556.9 µS/cm	0.88 mg/L	7.57 NTU	18.9 mV	49.91 ft	250.00 ml/min
8/19/2024 2:31 PM	05:00	6.64 pH	23.71 °C	1,640.5 µS/cm	1.32 mg/L	4.19 NTU	-14.4 mV	50.43 ft	250.00 ml/min
8/19/2024 2:36 PM	10:00	6.66 pH	23.64 °C	1,636.2 µS/cm	1.36 mg/L	2.50 NTU	-13.4 mV	51.00 ft	250.00 ml/min
8/19/2024 2:41 PM	15:00	6.75 pH	23.37 °C	1,631.1 µS/cm	1.16 mg/L	1.42 NTU	-17.5 mV	51.14 ft	250.00 ml/min
8/19/2024 2:46 PM	20:00	6.75 pH	23.27 °C	1,636.5 µS/cm	0.96 mg/L	1.15 NTU	-20.6 mV	51.28 ft	250.00 ml/min
8/19/2024 2:51 PM	25:00	6.74 pH	23.31 °C	1,639.8 µS/cm	0.78 mg/L	0.80 NTU	-22.5 mV	51.43 ft	250.00 ml/min
8/19/2024 2:56 PM	30:00	6.74 pH	23.25 °C	1,642.2 µS/cm	0.63 mg/L	0.67 NTU	-23.0 mV	51.57 ft	250.00 ml/min
8/19/2024 3:01 PM	35:00	6.73 pH	22.87 °C	1,652.8 µS/cm	0.53 mg/L	0.55 NTU	-23.1 mV	51.70 ft	250.00 ml/min
8/19/2024 3:06 PM	40:00	6.72 pH	23.20 °C	1,652.0 µS/cm	0.46 mg/L	0.46 NTU	-22.9 mV	51.81 ft	250.00 ml/min

Samples

Sample ID:	Description:
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ARK-AP1PZ-8	@ 1510 6 bottles Metals Radium TDS Anions
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Low-Flow Test Report:

Test Date / Time: 8/19/2024 3:12:10 PM
Project: Arkwright
Operator Name: J.Myer

Location Name: AP1PZ-9 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 46.3 ft Total Depth: 57.4 ft Initial Depth to Water: 42.3 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 50.1 ft Estimated Total Volume Pumped: 4000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 5.2 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082817
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Test Notes:
Well purged dry. Will sample the following day.

MP-50 S/N: 22
ID: 103
PSI: 30
Turbidimeter S/N: 23060D000290
WL S/N: T11DF2106090ML

Weather Conditions:
Sunny 90 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	
8/19/2024 3:12 PM	00:00	5.37 pH	34.36 °C	567.43 µS/cm	3.16 mg/L	18.80 NTU	202.9 mV	42.95 ft	100.00 ml/min
8/19/2024 3:17 PM	05:00	4.76 pH	24.24 °C	622.41 µS/cm	1.43 mg/L	14.70 NTU	214.9 mV	43.65 ft	100.00 ml/min
8/19/2024 3:22 PM	10:00	4.47 pH	23.43 °C	626.79 µS/cm	2.76 mg/L	9.59 NTU	246.4 mV	44.35 ft	100.00 ml/min
8/19/2024 3:27 PM	15:00	4.41 pH	23.25 °C	628.97 µS/cm	3.24 mg/L	6.18 NTU	250.7 mV	44.95 ft	100.00 ml/min
8/19/2024 3:32 PM	20:00	4.39 pH	22.98 °C	628.04 µS/cm	3.48 mg/L	4.37 NTU	247.3 mV	45.65 ft	100.00 ml/min
8/19/2024 3:37 PM	25:00	4.39 pH	22.98 °C	630.48 µS/cm	3.78 mg/L	3.81 NTU	246.2 mV	46.25 ft	100.00 ml/min
8/19/2024 3:42 PM	30:00	4.41 pH	23.29 °C	629.41 µS/cm	4.00 mg/L	3.77 NTU	243.8 mV	46.85 ft	100.00 ml/min
8/19/2024 3:47 PM	35:00	4.43 pH	23.22 °C	627.68 µS/cm	4.21 mg/L	4.15 NTU	240.6 mV	47.50 ft	100.00 ml/min
8/19/2024 3:52 PM	40:00	4.48 pH	23.24 °C	629.92 µS/cm	4.14 mg/L	5.11 NTU	251.3 mV	47.50 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/20/2024 9:26:24 AM
Project: Arkwright
Operator Name: J.Myer

Location Name: AP1PZ-9 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 46.3 ft Total Depth: 57.4 ft Initial Depth to Water: 42.3 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 50.1 ft Estimated Total Volume Pumped: 0 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.7 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082817
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Test Notes:
Collecting sample after purging dry the previous day

MP-50 S/N: 22
ID: 103
PSI: 30
Turbidimeter S/N: 22990D000345
WL S/N: T11DF2106090ML

Weather Conditions:
Sunny 75 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 9:26 AM	00:00	5.52 pH	25.98 °C	680.17 µS/cm	4.61 mg/L	3.06 NTU	134.5 mV	43.00 ft	100.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1PZ-9	6 bottles filled at 0930 1 Metals 1 TDS 1 Anions 3 Ra-226/Ra-228

Low-Flow Test Report:

Test Date / Time: 8/19/2024 4:57:52 PM
Project: Arkwright
Operator Name: J.Myer

Location Name: AP1PZ-10 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 46 ft Total Depth: 56.5 ft Initial Depth to Water: 40.2 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 50.5 ft Estimated Total Volume Pumped: 3000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 3.9 ft	Instrument Used: Aqua TROLL 400 Serial Number: 1082817
---	--	---

Test Notes:
MP-50 S/N: 22
ID: 103
PSI: 30
Turbidimeter S/N: 23060D000290
WL S/N: T11DF2106090ML

Weather Conditions:
Sunny 90 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	
8/19/2024 4:57 PM	00:00	6.28 pH	33.80 °C	562.29 µS/cm	5.47 mg/L	1.62 NTU	81.4 mV	40.80 ft	100.00 ml/min
8/19/2024 5:02 PM	05:00	6.32 pH	21.90 °C	627.39 µS/cm	0.52 mg/L	13.80 NTU	-137.1 mV	41.90 ft	100.00 ml/min
8/19/2024 5:07 PM	10:00	6.32 pH	22.05 °C	639.47 µS/cm	0.24 mg/L	4.49 NTU	-173.3 mV	42.55 ft	100.00 ml/min
8/19/2024 5:12 PM	15:00	6.38 pH	21.75 °C	683.75 µS/cm	0.20 mg/L	4.27 NTU	-118.3 mV	43.10 ft	100.00 ml/min
8/19/2024 5:17 PM	20:00	6.40 pH	21.55 °C	727.83 µS/cm	0.17 mg/L	2.39 NTU	-108.0 mV	43.40 ft	100.00 ml/min
8/19/2024 5:22 PM	25:00	6.38 pH	21.41 °C	721.43 µS/cm	0.17 mg/L	2.57 NTU	-100.5 mV	43.80 ft	100.00 ml/min
8/19/2024 5:27 PM	30:00	6.37 pH	21.37 °C	717.70 µS/cm	0.17 mg/L	2.80 NTU	-147.4 mV	44.10 ft	100.00 ml/min

Samples

Sample ID:	Description:
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ARK-AP1PZ-10	6 bottles filled at 1730 3 Ra-226/Ra-228 1 TDS 1 Anions 1 Metals
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Low-Flow Test Report:

Test Date / Time: 8/19/2024 12:55:56 PM
Project: Arkwright
Operator Name: Z Levy

Location Name: AP1PZ-11 Latitude: 32.920572962642574 Longitude: -83.69909590117977 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 62.8 ft Total Depth: 73.3 ft Initial Depth to Water: 40.18 ft	Pump Type: Dedicated Bladder Pump Tubing Type: LDPE Pump Intake From TOC: 67.9 ft Estimated Total Volume Pumped: 6000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.42 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989619
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Test Notes:
CPM:4
ID: 106
PSI: 40

Weather Conditions:
Clear

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	
8/19/2024 12:55 PM	00:00	6.64 pH	24.46 °C	278.73 µS/cm	2.65 mg/L	4.24 NTU	136.4 mV	40.68 ft	300.00 ml/min
8/19/2024 1:00 PM	05:00	6.83 pH	22.61 °C	283.25 µS/cm	2.57 mg/L	2.36 NTU	112.9 mV	40.71 ft	300.00 ml/min
8/19/2024 1:05 PM	10:00	6.79 pH	22.38 °C	282.91 µS/cm	2.57 mg/L	1.17 NTU	81.1 mV	40.75 ft	300.00 ml/min
8/19/2024 1:10 PM	15:00	6.80 pH	22.16 °C	278.69 µS/cm	2.58 mg/L	0.77 NTU	77.8 mV	40.76 ft	300.00 ml/min
8/19/2024 1:15 PM	20:00	6.80 pH	23.32 °C	292.58 µS/cm	2.70 mg/L	1.02 NTU	77.4 mV	40.60 ft	300.00 ml/min

Samples

Sample ID:	Description:
ARK-AP1PZ-11	@ 1320 6 bottles Metals Anions TDS Radium

ARK-AP1-FD-02	6 bottles Metals Anions TDS radium
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Plant Arkwright AP-1 Surface Water Samples August 12-13, 2024

Sample ID*	Date	Time	Temp(°C)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Conductance (mS/cm)	Coordinates
ARK-BC-0.3	8/12/2024	1004	24.2	7.47	158.4	7.79	1.63	0.156	32.918089,-83.698692
ARC-BC-0.1	8/12/2024	1020	25.1	7.57	169.4	8.58	2.43	0.169	32.916017,-83.696292
ARC-OR-0.8	8/13/2024	0903	28.7	7.91	48.2	7.46	4.06	0.117	32.926994,-83.697536
ARC-OR-0.1	8/13/2024	1038	29.7	7.81	87.8	7.57	2.40	0.116	32.916342,-83.696092
ARC-OR-0.3	8/13/2024	1000	29.1	7.86	71.7	7.60	3.42	0.117	32.919226, -83.697100
ARC-OR+0.25	8/13/2024	1100	30.1	7.38	95.1	7.72	2.49	0.118	32.914186,-83.691789

*OR samples collected with aerial drone utilizing a bailer

B.2 Calibration Data



Field Instrumentation Calibration Form

Site Name: GPC Plant Arkwright

Date: 08/19/2024

Calibrated By: Dylan Quintal

Field Conditions: Sunny, 81F

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	10:55	Time Finish	11:15		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,489.0	28.26	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	28.26	± 0.1	GWMP
pH (SU)	7.00	7.01	28.68	± 0.1	GWMP
pH (SU)	10.00	10.01	28.51	± 0.1	GWMP
D.O. (%)	N/A	100.55	30.30	± 10%	NA
ORP (mV)	228.0	218.6	28.78	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.7	± 10% of standard	EPA 2023
	100	96		
	800	773		
	10	9.51		

Calibration Check					
Time Start	14:30	Time Finish	14:40		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,462.3	31.29	± 10% of standard	EPA 2023
pH (SU)	4.00	4.05	31.36	± 0.1	GWMP
pH (SU)	7.00	7.04	30.86	± 0.1	GWMP
pH (SU)	10.00	10.02	30.94	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.2	± 10% of standard	EPA 2023
	100	100		
	800	801		
	10	9.04		

Notes:

Completed by
Checked by

DQ 08/19/2024
AS 08/23/2024

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll 400	1080306
Turbidity Meter	Hach 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		Time Finish			
7:48		7:57			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,480	30.72	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	30.68	± 0.1	GWMP
pH (SU)	7.00	6.99	29.85	± 0.1	GWMP
pH (SU)	10.00	10.01	29.27	± 0.1	GWMP
D.O. (%)	N/A	99.12	32.33	± 10%	NA
ORP (mV)	228.0	227.5	29.75	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.9	± 10% of standard	EPA 2023
	100	102		
	800	781		
	10	9.95		

Calibration Check					
Time Start		Time Finish			
15:45		15:55			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,468	28.44	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	28.91	± 0.1	GWMP
pH (SU)	7.00	7.01	29.03	± 0.1	GWMP
pH (SU)	10.00	10.01	29.11	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20	± 10% of standard	EPA 2023
	100	104		
	800	767		
	10	9.99		

Team 3

Completed by
Checked by

JB 08/19/2024
AS 08/23/2024

Field Instrumentation Calibration Form

Site Name: GPC Plant Arkwright

Date: 08/19/2024

Calibrated By: John Myer

Field Conditions: Sunny, 83F

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-Situ AquaTroll 400	1082817
Turbidity Meter	Hach 2100Q	23060D000290

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	11:20	Time Finish	12:00		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4533	31.3	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	30.7	± 0.1	GWMP
pH (SU)	7.00	7.00	30.5	± 0.1	GWMP
pH (SU)	10.00	10.00	30.3	± 0.1	GWMP
D.O. (%)	N/A	100	31.6	± 10%	NA
ORP (mV)	228.0	227	31.6	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.8	± 10% of standard	EPA 2023
	100	105		
	800	747		
	10	10.1		

Calibration Check					
Time Start	14:20	Time Finish	14:35		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,513	37.1	± 10% of standard	EPA 2023
pH (SU)	4.00	4.04	37.1	± 0.1	GWMP
pH (SU)	7.00	7.00	36.8	± 0.1	GWMP
pH (SU)	10.00	9.98	35.8	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.1	± 10% of standard	EPA 2023
	100	96.1		
	800	803		
	10	9.94		

Notes:

Completed by
Checked by

JM 08/19/2024
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		Time Finish			
10:45		11:03			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,381.4	27.04	± 10% of standard	EPA 2023
pH (SU)	4.00	3.84	27.14	± 0.1	GWMP
pH (SU)	7.00	6.99	26.8	± 0.1	GWMP
pH (SU)	10.00	9.81	26.77	± 0.1	GWMP
D.O. (%)	N/A	103.07	26.06	± 10%	NA
ORP (mV)	228.0	222.4	26.59	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.8	± 10% of standard	EPA 2023
	100	100		
	800	807		
	10	9.76		

Calibration Check					
Time Start		Time Finish			
1536		1545			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4,481.1	29.89	± 10% of standard	EPA 2023
pH (SU)	4.00	4.08	29.89	± 0.1	GWMP
pH (SU)	7.00	7.09	29.33	± 0.1	GWMP
pH (SU)	10.00	10.1	29.14	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	10	9.92	± 10% of standard	EPA 2023
	20	20.9		
	100	101		
	800	802		

Notes:

B.3 Groundwater & 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: 682084

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>
682084001	ARK-AP1GWA-1	Ground Water	08/19/24 12:15	08/21/24 14:00
682084002	ARK-AP1GWA-2	Ground Water	08/19/24 12:45	08/21/24 14:00
682084003	ARK-AP1PZ-1	Ground Water	08/19/24 13:25	08/21/24 14:00
682084004	ARK-AP1PZ-2	Ground Water	08/19/24 15:40	08/21/24 14:00
682084005	ARK-AP1PZ-3	Ground Water	08/19/24 17:25	08/21/24 14:00
682084006	ARK-AP1PZ-4	Ground Water	08/19/24 14:10	08/21/24 14:00
682084007	ARK-AP1PZ-5	Ground Water	08/19/24 16:05	08/21/24 14:00
682084008	ARK-AP1PZ-7	Ground Water	08/19/24 13:55	08/21/24 14:00
682084009	ARK-AP1PZ-8	Ground Water	08/19/24 15:10	08/21/24 14:00
682084010	ARK-AP1PZ-9	Ground Water	08/19/24 09:30	08/21/24 14:00
682084011	ARK-AP1PZ-10	Ground Water	08/19/24 17:30	08/21/24 14:00
682084012	ARK-AP1PZ-11	Ground Water	08/19/24 13:20	08/21/24 14:00
682084013	ARK-AP1-EB-01	Water	08/19/24 12:00	08/21/24 14:00
682084014	ARK-AP1-FD-01	Water	08/19/24 12:00	08/21/24 14:00
682084015	ARK-AP1-FB-01	Water	08/19/24 13:30	08/21/24 14:00
682084016	ARK-AP1-EB-02	Water	08/19/24 17:30	08/21/24 14:00



682084017	ARK-AP1-FD-02	Water	08/19/24 12:00	08/21/24 14:00
682084018	ARK-AP1-FB-02	Water	08/19/24 14:10	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

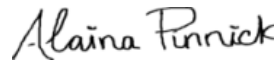
<u>Method</u>	<u>Run Date ID</u>
SW846 3005A	26-AUG-2024
SW846 7470A Prep	22-AUG-2024

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
EPA 300.0	23-AUG-2024
EPA 300.0	24-AUG-2024
EPA 300.0	29-AUG-2024
SM 2540C	26-AUG-2024
SW846 3005A/6020B	01-SEP-2024
SW846 3005A/6020B	02-SEP-2024
SW846 7470A	23-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
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: 682084 GEL Work Order: 682084

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 Metals--The Matrix spike sample recovery is not within specified control limits
- 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-AP1GWA-1
Sample ID: 682084001
Matrix: WG
Collect Date: 19-AUG-24 12:15
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		1.80	0.0670	0.200	mg/L		1	CWW	08/23/24	1303	2661838	1
Fluoride		0.333	0.0330	0.100	mg/L		1					
Sulfate		55.2	0.665	2.00	mg/L		5	CWW	08/24/24	0458	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1132	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1702	2661532	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0515	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00212	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000367	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00445	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00662	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0112	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00316	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Boron		0.116	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1125	2661532	5
Calcium		17.4	0.0800	0.200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		149	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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-AP1GWA-1
Sample ID: 682084001

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	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

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-AP1GWA-2 Project: GPCC00100
Sample ID: 682084002 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 12:45
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		2.13	0.0670	0.200	mg/L		1	CWW	08/23/24	1438	2661838	1
Fluoride	J	0.0788	0.0330	0.100	mg/L		1					
Sulfate		0.982	0.133	0.400	mg/L		1	CWW	08/24/24	0633	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1133	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1736	2661532	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0403	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	J	0.00345	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00177	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	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					
Boron		0.0505	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1131	2661532	5
Calcium		6.58	0.0800	0.200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		57.0	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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-AP1GWA-2
Sample ID: 682084002

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	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

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-AP1PZ-1 Project: GPCC00100
Sample ID: 682084003 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 13:25
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		2.33	0.0670	0.200	mg/L		1	CWW	08/23/24	1510	2661838	1
Fluoride	J	0.0960	0.0330	0.100	mg/L		1					
Sulfate		111	1.33	4.00	mg/L		10	CWW	08/24/24	1135	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1135	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.382	0.0260	0.0750	mg/L	1.00	5	BAJ	09/02/24	1133	2661532	4
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1742	2661532	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0358	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	J	0.000733	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00458	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000419	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					
Calcium		32.6	0.0800	0.200	mg/L	1.00	1	BAJ	09/02/24	1132	2661532	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		231	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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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-AP1PZ-1
Sample ID: 682084003

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	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

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-AP1PZ-2 Project: GPCC00100
Sample ID: 682084004 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 15:40
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		703	13.3	40.0	mg/L		100	CWW	08/24/24	1207	2661838	1
Chloride		3.37	0.0670	0.200	mg/L		1	CWW	08/23/24	1542	2661838	2
Fluoride	J	0.0687	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	1140	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1747	2661532	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0233	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000403	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.102	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0184	0.00300	0.0100	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					
Boron		0.421	0.0260	0.0750	mg/L	1.00	5	BAJ	09/02/24	1134	2661532	5
Calcium		177	0.400	1.00	mg/L	1.00	5					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1060	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1PZ-2
Sample ID: 682084004

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	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

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-AP1PZ-3 Project: GPCC00100
Sample ID: 682084005 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 17:25
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		5.61	0.0670	0.200	mg/L		1	CWW	08/23/24	1614	2661838	1
Fluoride		0.112	0.0330	0.100	mg/L		1					
Sulfate		1390	26.6	80.0	mg/L		200	CWW	08/24/24	1239	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1142	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		1.53	0.0520	0.150	mg/L	1.00	10	BAJ	09/02/24	1141	2661532	4
Calcium		392	0.800	2.00	mg/L	1.00	10					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1753	2661532	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0207	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00537	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0561	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0632	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000272	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2020	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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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-AP1PZ-3
Sample ID: 682084005

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	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

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-AP1PZ-4 Project: GPCC00100
Sample ID: 682084006 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 14:10
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		5.64	0.0670	0.200	mg/L		1	CWW	08/23/24	1646	2661838	1
Fluoride		0.209	0.0330	0.100	mg/L		1					
Sulfate		1450	26.6	80.0	mg/L		200	CWW	08/24/24	1311	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1143	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1804	2661532	4
Arsenic	J	0.00272	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0308	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	J	0.000625	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00642	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00402	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					
Boron		4.01	0.260	0.750	mg/L	1.00	50	BAJ	09/02/24	1142	2661532	5
Calcium		395	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2200	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1PZ-4
Sample ID: 682084006

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	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

GEL LABORATORIES LLC

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Certificate of Analysis

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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-AP1PZ-5
Sample ID: 682084007
Matrix: WG
Collect Date: 19-AUG-24 16:05
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"												
Chloride		9.55	0.268	0.800	mg/L		4	CWW	08/24/24	1342	2661838	1
Sulfate		2140	33.3	100	mg/L		250	CWW	08/24/24	1414	2661838	2
Fluoride		0.320	0.0330	0.100	mg/L		1	CWW	08/23/24	1821	2661838	3
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	1145	2661034	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		7.14	0.260	0.750	mg/L	1.00	50	BAJ	09/02/24	1144	2661532	5
Calcium		606	4.00	10.0	mg/L	1.00	50					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/02/24	1036	2661532	6
Arsenic	J	0.00434	0.00200	0.00500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Molybdenum		0.0375	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Barium		0.0340	0.000670	0.00400	mg/L	1.00	1	BAJ	09/01/24	1810	2661532	7
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0890	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.414	0.00300	0.0100	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		3060	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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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-AP1PZ-5
Sample ID: 682084007

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	EPA 300.0											
4	SW846 7470A											
5	SW846 3005A/6020B											
6	SW846 3005A/6020B											
7	SW846 3005A/6020B											
8	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-AP1PZ-7
Sample ID: 682084008
Matrix: WG
Collect Date: 19-AUG-24 13:55
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		1400	26.6	80.0	mg/L		200	CWW	08/24/24	1446	2661838	1
Chloride		6.81	0.0670	0.200	mg/L		1	CWW	08/23/24	1853	2661838	2
Fluoride		0.167	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	1146	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1815	2661532	4
Arsenic	J	0.00288	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0285	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		0.00141	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00173	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					
Boron		3.38	0.260	0.750	mg/L	1.00	50	BAJ	09/02/24	1145	2661532	5
Calcium		364	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2230	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1PZ-7
Sample ID: 682084008

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	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-AP1PZ-8 Project: GPCC00100
Sample ID: 682084009 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 15:10
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		732	13.3	40.0	mg/L		100	CWW	08/24/24	1518	2661838	1
Chloride		3.55	0.0670	0.200	mg/L		1	CWW	08/23/24	1925	2661838	2
Fluoride		0.274	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	1148	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1821	2661532	4
Arsenic	J	0.00221	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0371	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000322	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000544	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00468	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.712	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					
Boron		2.94	0.260	0.750	mg/L	1.00	50	BAJ	09/02/24	1146	2661532	5
Calcium		315	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1380	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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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-AP1PZ-8
Sample ID: 682084009

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	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-AP1PZ-9 Project: GPCC00100
Sample ID: 682084010 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 09:30
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		4.57	0.0670	0.200	mg/L		1	CWW	08/23/24	1957	2661838	1
Fluoride		0.795	0.0330	0.100	mg/L		1					
Sulfate		328	3.33	10.0	mg/L		25	CWW	08/24/24	1550	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1150	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1832	2661532	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0212	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.000558	0.000200	0.000500	mg/L	1.00	1					
Cadmium		0.00118	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.102	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.143	0.00300	0.0100	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					
Boron		0.729	0.0260	0.0750	mg/L	1.00	5	BAJ	09/02/24	1155	2661532	5
Calcium		67.8	0.400	1.00	mg/L	1.00	5					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		541	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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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-AP1PZ-9
Sample ID: 682084010

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	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-AP1PZ-10 Project: GPCC00100
Sample ID: 682084011 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 17:30
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		253	3.33	10.0	mg/L		25	CWW	08/24/24	1622	2661838	1
Chloride		9.67	0.0670	0.200	mg/L		1	CWW	08/23/24	2029	2661838	2
Fluoride		0.464	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	1151	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.366	0.0260	0.0750	mg/L	1.00	5	BAJ	09/02/24	1156	2661532	4
Calcium		86.4	0.400	1.00	mg/L	1.00	5					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1838	2661532	5
Arsenic	J	0.00267	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0302	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	J	0.000895	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0186	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00163	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		514	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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Certificate of Analysis

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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-AP1PZ-10
Sample ID: 682084011

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	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-AP1PZ-11 Project: GPCC00100
Sample ID: 682084012 Client ID: GPCC001
Matrix: WG
Collect Date: 19-AUG-24 13:20
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		42.3	0.665	2.00	mg/L		5	CWW	08/24/24	1901	2661838	1
Chloride		1.33	0.0670	0.200	mg/L		1	CWW	08/23/24	2204	2661838	2
Fluoride		0.106	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	1153	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.152	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1151	2661532	4
Calcium		24.7	0.0800	0.200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1844	2661532	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0194	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	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000492	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		515	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1PZ-11
Sample ID: 682084012

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	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

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-AP1-EB-01
Sample ID: 682084013
Matrix: WQ
Collect Date: 19-AUG-24 12:00
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	U	ND	0.0670	0.200	mg/L		1	CWW	08/23/24	2236	2661838	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1	CWW	08/29/24	1619	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1155	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1115	2661532	4
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1849	2661532	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	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	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	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					

Solids Analysis

SM2540C Dissolved Solids "As Received"

Total Dissolved Solids	J	3.00	2.38	10.0	mg/L		ES2	08/26/24	1131	2662365	6
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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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1-EB-01
Sample ID: 682084013

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	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-AP1-FD-01
Sample ID: 682084014
Matrix: WQ
Collect Date: 19-AUG-24 12:00
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		2.15	0.0670	0.200	mg/L		1	CWW	08/23/24	2308	2661838	1
Fluoride	J	0.0706	0.0330	0.100	mg/L		1					
Sulfate		1.09	0.133	0.400	mg/L		1	CWW	08/29/24	1651	2661838	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	08/23/24	1200	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron		0.0483	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1152	2661532	4
Calcium		6.65	0.0800	0.200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1900	2661532	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0396	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	J	0.00324	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00180	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		62.0	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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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-AP1-FD-01
Sample ID: 682084014

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	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-AP1-FB-01
Sample ID: 682084015
Matrix: WQ
Collect Date: 19-AUG-24 13:30
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	U	ND	0.0670	0.200	mg/L		1	CWW	08/24/24	0115	2661838	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	08/23/24	1201	2661034	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1906	2661532	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	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	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	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					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1116	2661532	4
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					

Solids Analysis

SM2540C Dissolved Solids "As Received"

Total Dissolved Solids	U	ND	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	5
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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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1-FB-01
Sample ID: 682084015

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	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-AP1-EB-02 Project: GPCC00100
Sample ID: 682084016 Client ID: GPCC001
Matrix: WQ
Collect Date: 19-AUG-24 17:30
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	CWW	08/24/24	0147	2661838	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	08/23/24	1203	2661034	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1117	2661532	3
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1912	2661532	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					
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	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	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					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	5

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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1-EB-02
Sample ID: 682084016

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	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-AP1-FD-02
Sample ID: 682084017
Matrix: WQ
Collect Date: 19-AUG-24 12:00
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		43.0	0.665	2.00	mg/L		5	CWW	08/24/24	1932	2661838	1
Chloride		1.32	0.0670	0.200	mg/L		1	CWW	08/24/24	0219	2661838	2
Fluoride		0.105	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	1205	2661034	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1917	2661532	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0198	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	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000444	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					
Boron		0.159	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1153	2661532	5
Calcium		25.1	0.0800	0.200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		200	2.38	10.0	mg/L			ES2	08/26/24	1131	2662365	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	JM13	08/22/24	1110	2661033

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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-AP1-FD-02
Sample ID: 682084017

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	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-AP1-FB-02 Project: GPCC00100
Sample ID: 682084018 Client ID: GPCC001
Matrix: WQ
Collect Date: 19-AUG-24 14:10
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	CWW	08/24/24	0251	2661838	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	08/23/24	1206	2661034	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	BAJ	09/02/24	1118	2661532	3
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	BAJ	09/01/24	1923	2661532	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					
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	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	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					

Solids Analysis

SM2540C Dissolved Solids "As Received"

Total Dissolved Solids	J	3.00	2.38	10.0	mg/L		ES2	08/26/24	1131	2662365	5
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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	2661033
SW846 3005A	ICP-MS 3005A PREP	PB1	08/26/24	1505	2661530

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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-AP1-FB-02
Sample ID: 682084018

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	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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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: 682084

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

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QC Summary

Workorder: 682084

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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	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	2661532										
QC1205831822 LCS											
Antimony	0.0500			0.0503	mg/L		101	(80%-120%)	BAJ	09/01/24	16:54
Arsenic	0.0500			0.0500	mg/L		100	(80%-120%)			
Barium	0.0500			0.0495	mg/L		99.1	(80%-120%)			
Beryllium	0.0500			0.0597	mg/L		119	(80%-120%)			
Boron	0.100			0.111	mg/L		111	(80%-120%)		09/02/24	11:14
Cadmium	0.0500			0.0495	mg/L		99.1	(80%-120%)		09/01/24	16:54
Calcium	2.00			2.17	mg/L		109	(80%-120%)		09/02/24	11:14

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661532										
Chromium	0.0500			0.0505	mg/L		101	(80%-120%)	BAJ	09/01/24	16:54
Cobalt	0.0500			0.0486	mg/L		97.2	(80%-120%)			
Lead	0.0500			0.0504	mg/L		101	(80%-120%)			
Lithium	0.0500			0.0570	mg/L		114	(80%-120%)			
Molybdenum	0.0500			0.0493	mg/L		98.5	(80%-120%)			
Selenium	0.0500			0.0491	mg/L		98.2	(80%-120%)			
Thallium	0.0500			0.0481	mg/L		96.2	(80%-120%)			
QC1205831821	MB										
Antimony			U	ND	mg/L					09/01/24	16:51
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					09/02/24	11:13
Cadmium			U	ND	mg/L					09/01/24	16:51
Calcium			U	ND	mg/L					09/02/24	11:13

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661532										
Chromium			U	ND	mg/L				BAJ	09/01/24	16:51
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
QC1205831823 682084001 MS											
Antimony	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)		09/01/24	17:05
Arsenic	0.0500	U	ND	0.0523	mg/L		102	(75%-125%)			
Barium	0.0500		0.0515	0.0992	mg/L		95.3	(75%-125%)			
Beryllium	0.0500		0.00212	0.0654	mg/L		127 *	(75%-125%)			
Boron	0.100		0.116	0.229	mg/L		113	(75%-125%)		09/02/24	11:26
Cadmium	0.0500	J	0.000367	0.0516	mg/L		103	(75%-125%)		09/01/24	17:05
Calcium	2.00		17.4	19.0	mg/L		N/A	(75%-125%)		09/02/24	11:26

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2661532											
Chromium	0.0500	J	0.00445		0.0525	mg/L		96	(75%-125%)	BAJ	09/01/24	17:05
Cobalt	0.0500		0.00662		0.0551	mg/L		96.9	(75%-125%)			
Lead	0.0500	U	ND		0.0512	mg/L		102	(75%-125%)			
Lithium	0.0500		0.0112		0.0700	mg/L		117	(75%-125%)			
Molybdenum	0.0500	U	ND		0.0500	mg/L		99.9	(75%-125%)			
Selenium	0.0500	J	0.00316		0.0538	mg/L		101	(75%-125%)			
Thallium	0.0500	U	ND		0.0484	mg/L		96.7	(75%-125%)			
QC1205831824	682084001	MSD										
Antimony	0.0500	U	ND		0.0476	mg/L	8.02	95.1	(0%-20%)		09/01/24	17:08
Arsenic	0.0500	U	ND		0.0491	mg/L	6.29	95.7	(0%-20%)			
Barium	0.0500		0.0515		0.0922	mg/L	7.32	81.3	(0%-20%)			
Beryllium	0.0500		0.00212		0.0603	mg/L	8.14	116	(0%-20%)			
Boron	0.100		0.116		0.224	mg/L	2.31	108	(0%-20%)		09/02/24	11:28
Cadmium	0.0500	J	0.000367		0.0478	mg/L	7.75	94.8	(0%-20%)		09/01/24	17:08
Calcium	2.00		17.4		18.3	mg/L	3.75	N/A	(0%-20%)		09/02/24	11:28

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Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch	2661532											
Chromium	0.0500	J	0.00445		0.0519	mg/L	1.1	94.9	(0%-20%)	BAJ	09/01/24	17:08
Cobalt	0.0500		0.00662		0.0532	mg/L	3.39	93.2	(0%-20%)			
Lead	0.0500	U	ND		0.0475	mg/L	7.48	94.9	(0%-20%)			
Lithium	0.0500		0.0112		0.0679	mg/L	3.06	113	(0%-20%)			
Molybdenum	0.0500	U	ND		0.0479	mg/L	4.28	95.7	(0%-20%)			
Selenium	0.0500	J	0.00316		0.0486	mg/L	10	91	(0%-20%)			
Thallium	0.0500	U	ND		0.0456	mg/L	5.77	91.2	(0%-20%)			
QC1205842017	682084001	PS										
Beryllium	50.0		2.12		67.4	ug/L		130 *	(75%-125%)		09/01/24	17:11
QC1205831825	682084001	SDILT										
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)		09/01/24	17:14
Arsenic		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Barium			51.5		10.8	ug/L	4.96		(0%-20%)			
Beryllium			2.12	J	0.436	ug/L	2.68		(0%-20%)			
Boron			116		23.8	ug/L	2.74		(0%-20%)		09/02/24	11:30
Cadmium		J	0.367	U	ND	ug/L	N/A		(0%-20%)		09/01/24	17:14

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2661532										
Calcium		17400		3600	ug/L	3.41		(0%-20%)	BAJ	09/02/24	11:30
Chromium	J	4.45	U	ND	ug/L	N/A		(0%-20%)		09/01/24	17:14
Cobalt		6.62		1.45	ug/L	9.2		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium		11.2	U	ND	ug/L	N/A		(0%-20%)			
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Selenium	J	3.16	U	ND	ug/L	N/A		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2661034										
QC1205830709	682062001	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	08/23/24	11:25
QC1205830708	LCS										
Mercury		0.00200		0.00201	mg/L		100	(80%-120%)		08/23/24	11:22
QC1205830707	MB										
Mercury			U	ND	mg/L					08/23/24	11:20
QC1205830710	682062001	MS									
Mercury		0.00200	U	ND	0.00128	mg/L	63.8*	(75%-125%)		08/23/24	11:27

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	2661034										
QC1205830712	682062001	PS									
Mercury	2.00	U		ND	1.22	ug/L	61 *	(80%-120%)	JP2	08/23/24	11:30
QC1205830711	682062001	SDILT									
Mercury		U		ND	U	ND	ug/L	N/A		(0%-10%)	08/23/24 11:28
Solids Analysis											
Batch	2662365										
QC1205833963	682084009	DUP									
Total Dissolved Solids			1380		1350	mg/L	1.98			(0%-5%)	ES2 08/26/24 11:31
QC1205833961	LCS										
Total Dissolved Solids	300				288	mg/L		96		(95%-105%)	08/26/24 11:31
QC1205833960	MB										
Total Dissolved Solids			U		ND	mg/L					08/26/24 11:31

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
- ^ 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

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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 #: 682084**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

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

Analytical Batch: 2661532

Preparation Method: SW846 3005A

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

Preparation Batch: 2661530

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682084001	ARK-APIGWA-1
682084002	ARK-APIGWA-2
682084003	ARK-APIPZ-1
682084004	ARK-APIPZ-2
682084005	ARK-APIPZ-3
682084006	ARK-APIPZ-4
682084007	ARK-APIPZ-5
682084008	ARK-APIPZ-7
682084009	ARK-APIPZ-8
682084010	ARK-APIPZ-9
682084011	ARK-APIPZ-10
682084012	ARK-APIPZ-11
682084013	ARK-API-EB-01
682084014	ARK-API-FD-01
682084015	ARK-API-FB-01
682084016	ARK-API-EB-02
682084017	ARK-API-FD-02
682084018	ARK-API-FB-02
1205831821	Method Blank (MB) ICP-MS
1205831822	Laboratory Control Sample (LCS)
1205831825	682084001(ARK-APIGWA-1L) Serial Dilution (SD)
1205831823	682084001(ARK-APIGWA-1S) Matrix Spike (MS)
1205831824	682084001(ARK-APIGWA-1SD) Matrix Spike Duplicate (MSD)
1205842017	682084001(ARK-APIGWA-1PS) 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.

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.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1205831823 (ARK-APIGWA-1MS)	Beryllium	127* (75%-125%)

Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205842017 (ARK-APIGWA-1PS)	Beryllium	130* (75%-125%)

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 682084003 (ARK-APIPZ-1), 682084004 (ARK-APIPZ-2), 682084005 (ARK-APIPZ-3), 682084006 (ARK-APIPZ-4), 682084007 (ARK-APIPZ-5), 682084008 (ARK-APIPZ-7), 682084009 (ARK-APIPZ-8), 682084010 (ARK-APIPZ-9) and 682084011 (ARK-APIPZ-10) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	682084									
	003	004	005	006	007	008	009	010	011	
Boron	5X	5X	10X	50X	50X	50X	50X	5X	5X	
Calcium	1X	5X	10X	50X	50X	50X	50X	5X	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: 2661034

Preparation Method: SW846 7470A Prep

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

Preparation Batch: 2661033

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682084001	ARK-APIGWA-1
682084002	ARK-APIGWA-2
682084003	ARK-APIPZ-1
682084004	ARK-APIPZ-2
682084005	ARK-APIPZ-3
682084006	ARK-APIPZ-4
682084007	ARK-APIPZ-5
682084008	ARK-APIPZ-7
682084009	ARK-APIPZ-8
682084010	ARK-APIPZ-9
682084011	ARK-APIPZ-10
682084012	ARK-APIPZ-11
682084013	ARK-API-EB-01
682084014	ARK-API-FD-01
682084015	ARK-API-FB-01
682084016	ARK-API-EB-02
682084017	ARK-API-FD-02
682084018	ARK-API-FB-02
1205830707	Method Blank (MB)CVAA
1205830708	Laboratory Control Sample (LCS)
1205830711	682062001(NonSDGL) Serial Dilution (SD)
1205830709	682062001(NonSDGD) Sample Duplicate (DUP)
1205830710	682062001(NonSDGS) Matrix Spike (MS)
1205830712	682062001(NonSDGPS) 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/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1205830710 (Non SDG 682062001MS)	Mercury	63.8* (75%-125%)

Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205830712 (Non SDG 682062001PS)	Mercury	61* (80%-120%)

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>
682084001	ARK-APIGWA-1
682084002	ARK-APIGWA-2
682084003	ARK-APIPZ-1
682084004	ARK-APIPZ-2
682084005	ARK-APIPZ-3
682084006	ARK-APIPZ-4
682084007	ARK-APIPZ-5
682084008	ARK-APIPZ-7
682084009	ARK-APIPZ-8
682084010	ARK-APIPZ-9
682084011	ARK-APIPZ-10
682084012	ARK-APIPZ-11
682084013	ARK-API-EB-01
682084014	ARK-API-FD-01
682084015	ARK-API-FB-01
682084016	ARK-API-EB-02
682084017	ARK-API-FD-02
682084018	ARK-API-FB-02
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), 682084001 (ARK-APIGWA-1), 682084003 (ARK-APIPZ-1), 682084004 (ARK-APIPZ-2), 682084005 (ARK-APIPZ-3), 682084006 (ARK-APIPZ-4), 682084007 (ARK-APIPZ-5), 682084008 (ARK-APIPZ-7), 682084009 (ARK-APIPZ-8), 682084010 (ARK-APIPZ-9), 682084011 (ARK-APIPZ-10), 682084012 (ARK-APIPZ-11) and 682084017 (ARK-API-FD-02) 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	682084									
	001	003	004	005	006	007	008	009	010	011
Chloride	1X	1X	1X	1X	1X	4X	1X	1X	1X	1X
Sulfate	5X	10X	100X	200X	200X	250X	200X	100X	25X	25X

Analyte	682084	
	012	017
Sulfate	5X	5X

Sample Re-analysis

Sample was re-analyzed due to high CVH failure. The reanalysis data with passing instrument QC was reported. 1205832618 (MB), 1205832619 (LCS), 682084002 (ARK-APIGWA-2), 682084013 (ARK-API-EB-01) and 682084014 (ARK-API-FD-01).

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), 1205832623 (ARK-APIPZ-10PS), 682084001 (ARK-APIGWA-1), 682084002 (ARK-APIGWA-2), 682084003 (ARK-APIPZ-1), 682084004 (ARK-APIPZ-2), 682084005 (ARK-APIPZ-3), 682084010 (ARK-APIPZ-9), 682084011 (ARK-APIPZ-10), 682084012 (ARK-APIPZ-11), 682084014 (ARK-API-FD-01) and 682084017 (ARK-API-FD-02).

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

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

Analytical Batch: 2662365

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682084001	ARK-APIGWA-1
682084002	ARK-APIGWA-2
682084003	ARK-APIPZ-1
682084004	ARK-APIPZ-2
682084005	ARK-APIPZ-3
682084006	ARK-APIPZ-4

682084007	ARK-APIPZ-5
682084008	ARK-APIPZ-7
682084009	ARK-APIPZ-8
682084010	ARK-APIPZ-9
682084011	ARK-APIPZ-10
682084012	ARK-APIPZ-11
682084013	ARK-API-EB-01
682084014	ARK-API-FD-01
682084015	ARK-API-FB-01
682084016	ARK-API-EB-02
682084017	ARK-API-FD-02
682084018	ARK-API-FB-02
1205833960	Method Blank (MB)
1205833961	Laboratory Control Sample (LCS)
1205833963	682084009(ARK-APIPZ-8) 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.

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 Radioassay Specialty Analytics</small>		GEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171 Fax: (843) 766-1178		682084 682086	
Project # <u>175569434</u>							
GEL Quote #:		Chain of Custody and Analytical Request					
COC Number ⁽¹⁾ : <u>1</u> Sample Cooler(s): <u>5</u>		GEL Work Order Number:		GEL Project Manager: <u>Alaina Pinnick</u>			
PO Number: GPC82177-0005		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>1</u>		Fax: N/A		Should this sample be considered: Radioactive (if yes, please supply isotopic info.) (7) Known or possible Hazards		Total number of containers Metals App. III (B, Ca) (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)	
Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308		Collected By: Jackson Bankston, Zach Levy, John Myer, Dylan Quintal					
Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (a)	Sample Matrix (4)		
ARK-APIGWA-1	08-19-24	1215	N	N	WG		
ARK-APIGWA-2	08-19-24	1245	N	N	WG		
ARK-APIPZ-1	08-19-24	1325	N	N	WG		
ARK-APIPZ-2	08-19-24	1540	N	N	WG		
ARK-APIPZ-3	08-19-24	1725	N	N	WG		
ARK-APIPZ-4	08-19-24	1410	N	N	WG		
ARK-APIPZ-5	08-19-24	1605	N	N	WG		
ARK-APIPZ-7	08-19-24	1355	N	N	WG		
ARK-APIPZ-8	08-19-24	1510	N	N	WG		
ARK-APIPZ-9	08-20-24	0930	N	N	WG		
Chain of Custody Signatures						TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/> Specify: <input type="text"/> (Subject to Surcharge)	
Relinquished By (Signed)	Print Name	Date	Received by (signed)	Print Name	Date	Fax Results: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1	Stantec	8/21/24	2	8/21/24		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	
2			3	8/21/24	1400	Additional Remarks: Metals App. IV: Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	
3						For Lab Receiving Use Only: Custody Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: <u>0</u> °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=Faecal, 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, 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
 682086 682093
 AP
 682097
 w/ 8/26/24

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GACC</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 <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 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"/>	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"/>	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"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry Ice None Other: *all temperatures are recorded in Celsius
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" 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"/>	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"/>	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"/>	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"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" 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"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) <u>ARC-A RAMW-8 (2 of 3) plastic 1000 has 8/19/24</u>
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" 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"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
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 23, 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: 682086

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>
682086001	ARK-AP1GWA-1	Ground Water	08/19/24 12:15	08/21/24 14:00
682086002	ARK-AP1GWA-2	Ground Water	08/19/24 12:45	08/21/24 14:00
682086003	ARK-AP1PZ-1	Ground Water	08/19/24 13:25	08/21/24 14:00
682086004	ARK-AP1PZ-2	Ground Water	08/19/24 15:40	08/21/24 14:00
682086005	ARK-AP1PZ-3	Ground Water	08/19/24 17:25	08/21/24 14:00
682086006	ARK-AP1PZ-4	Ground Water	08/19/24 14:10	08/21/24 14:00
682086007	ARK-AP1PZ-5	Ground Water	08/19/24 16:05	08/21/24 14:00
682086008	ARK-AP1PZ-7	Ground Water	08/19/24 13:55	08/21/24 14:00
682086009	ARK-AP1PZ-8	Ground Water	08/19/24 15:10	08/21/24 14:00
682086010	ARK-AP1PZ-9	Ground Water	08/19/24 09:30	08/21/24 14:00
682086011	ARK-AP1PZ-10	Ground Water	08/19/24 17:30	08/21/24 14:00
682086012	ARK-AP1PZ-11	Ground Water	08/19/24 13:20	08/21/24 14:00
682086013	ARK-AP1-EB-01	Water	08/19/24 12:00	08/21/24 14:00
682086014	ARK-AP1-FD-01	Water	08/19/24 12:00	08/21/24 14:00
682086015	ARK-AP1-FB-01	Water	08/19/24 13:30	08/21/24 14:00
682086016	ARK-AP1-EB-02	Water	08/19/24 17:30	08/21/24 14:00



682086017	ARK-AP1-FD-02	Water	08/19/24 12:00	08/21/24 14:00
682086018	ARK-AP1-FB-02	Water	08/19/24 14:10	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

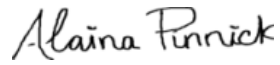
Not Applicable

Analysis Methods and Analysis Dates

<u>Method</u>	<u>Run Date ID</u>
Calculation	23-SEP-2024
EPA 903.1 Modified	20-SEP-2024
EPA 903.1 Modified	23-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: 682086 GEL Work Order: 682086

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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-APIGWA-1
Sample ID: 682086001
Matrix: WG
Collect Date: 19-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	1.94	+/-1.34	2.09	+/-1.43	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
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Radium-226+Radium-228 Calculation "See Parent Products"

Radium-226+228 Sum		2.77	+/-1.48	2.09	+/-1.57		pCi/L		1	TON1	09/23/24	1524	2665110	2
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Rad Radium-226

Lucas Cell, Ra226, Liquid "As Received"

Radium-226		0.832	+/-0.628	0.804	+/-0.646	1.00	pCi/L			MJ2	09/23/24	1117	2660996	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"	2661777	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	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	

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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1GWA-2

Project: GPCC00100

Sample ID: 682086002

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	0.401	+/-0.797	1.42	+/-0.804	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.77	+/-1.06	1.42	+/-1.14		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.37	+/-0.691	0.560	+/-0.807	1.00	pCi/L			MJ2	09/20/24	0824	2660996	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"	2661777	85	(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	

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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-1

Project: GPCC00100

Sample ID: 682086003

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	0.334	+/-1.10	1.97	+/-1.10	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.91	+/-1.24	1.97	+/-1.28		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.57	+/-0.578	0.471	+/-0.658	1.00	pCi/L			MJ2	09/20/24	0824	2660996	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"	2661777	86.2	(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	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	

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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-2

Project: GPCC00100

Sample ID: 682086004

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	0.0504	+/-0.717	1.41	+/-0.717	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.04	+/-0.908	1.41	+/-0.963		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.99	+/-0.556	0.298	+/-0.642	1.00	pCi/L			MJ2	09/20/24	0824	2660996	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"	2661777	77.6	(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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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-3

Project: GPCC00100

Sample ID: 682086005

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	1.72	+/-1.31	2.08	+/-1.38	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.91	+/-1.54	2.08	+/-1.77		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.19	+/-0.809	0.586	+/-1.10	1.00	pCi/L			MJ2	09/20/24	0824	2660996	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"	2661777	76.5	(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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-4

Project: GPCC00100

Sample ID: 682086006

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	-0.879	+/-1.09	2.21	+/-1.09	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.000	+/-1.12	2.21	+/-1.12		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	-0.146	+/-0.286	0.807	+/-0.286	1.00	pCi/L			MJ2	09/23/24	1117	2660996	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"	2661777	78.5	(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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Report Date: September 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-5

Project: GPCC00100

Sample ID: 682086007

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	0.168	+/-0.920	1.73	+/-0.921	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.26	+/-1.31	1.73	+/-1.49		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		4.09	+/-0.932	0.661	+/-1.18	1.00	pCi/L			MJ2	09/20/24	0824	2660996	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"	2661777	70.2	(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	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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-7

Project: GPCC00100

Sample ID: 682086008

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	0.644	+/-1.49	2.61	+/-1.49	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.46	+/-1.57	2.61	+/-1.59		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.819	+/-0.516	0.523	+/-0.532	1.00	pCi/L			MJ2	09/23/24	1134	2660996	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"	2661777	72.7	(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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Report Date: September 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-8

Project: GPCC00100

Sample ID: 682086009

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	0.389	+/-1.30	2.33	+/-1.31	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.809	+/-1.34	2.33	+/-1.34		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.420	+/-0.285	0.321	+/-0.293	1.00	pCi/L			MJ2	09/20/24	0859	2660996	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"	2661777	78.2	(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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-9

Project: GPCC00100

Sample ID: 682086010

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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		2.97	+/-1.55	2.32	+/-1.73	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.57	+/-1.58	2.32	+/-1.76		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.596	+/-0.310	0.285	+/-0.332	1.00	pCi/L			MJ2	09/20/24	0859	2660996	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"	2661777	76.8	(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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-10
Sample ID: 682086011
Matrix: WG
Collect Date: 19-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	-0.103	+/-1.26	2.34	+/-1.26	3.00	pCi/L			KP1	09/17/24	1127	2661777	1
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Radium-226+Radium-228 Calculation "See Parent Products"

Radium-226+228 Sum	U	0.528	+/-1.30	2.34	+/-1.31		pCi/L		1	TON1	09/23/24	1524	2665110	2
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Rad Radium-226

Lucas Cell, Ra226, Liquid "As Received"

Radium-226		0.528	+/-0.339	0.367	+/-0.360	1.00	pCi/L			MJ2	09/20/24	0859	2660996	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"	2661777	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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1PZ-11

Project: GPCC00100

Sample ID: 682086012

Client ID: GPCC001

Matrix: WG

Collect Date: 19-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	-0.224	+/-0.687	1.43	+/-0.687	3.00	pCi/L			KP1	09/17/24	1126	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.314	+/-0.729	1.43	+/-0.731		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.314	+/-0.243	0.300	+/-0.249	1.00	pCi/L			MJ2	09/20/24	0859	2660996	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"	2661777	79.3	(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	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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1-EB-01

Project: GPCC00100

Sample ID: 682086013

Client ID: GPCC001

Matrix: WQ

Collect Date: 19-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		1.70	+/-1.01	1.47	+/-1.10	3.00	pCi/L			KP1	09/17/24	1126	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.17	+/-1.06	1.47	+/-1.15		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.468	+/-0.323	0.408	+/-0.334	1.00	pCi/L			MJ2	09/20/24	0859	2660996	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"	2661777	82	(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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1-FD-01

Project: GPCC00100

Sample ID: 682086014

Client ID: GPCC001

Matrix: WQ

Collect Date: 19-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	1.09	+/-0.952	1.52	+/-0.992	3.00	pCi/L			KP1	09/17/24	1126	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.52	+/-1.04	1.52	+/-1.08		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.431	+/-0.422	0.624	+/-0.432	1.00	pCi/L			MJ2	09/23/24	1134	2660996	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"	2661777	80.2	(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	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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1-FB-01

Project: GPCC00100

Sample ID: 682086015

Client ID: GPCC001

Matrix: WQ

Collect Date: 19-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	-0.415	+/-0.767	1.61	+/-0.767	3.00	pCi/L			KP1	09/17/24	1126	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.290	+/-0.865	1.61	+/-0.867		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.290	+/-0.402	0.695	+/-0.404	1.00	pCi/L			MJ2	09/20/24	0859	2660996	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"	2661777	78.4	(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	

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 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1-EB-02

Project: GPCC00100

Sample ID: 682086016

Client ID: GPCC001

Matrix: WQ

Collect Date: 19-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	1.83	+/-1.34	2.13	+/-1.42	3.00	pCi/L			KP1	09/17/24	1126	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	2.10	+/-1.38	2.13	+/-1.46		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.276	+/-0.319	0.461	+/-0.322	1.00	pCi/L			MJ2	09/23/24	1134	2660996	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"	2661777	77	(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

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

Atlanta, Georgia 30308

Report Date: September 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1-FD-02

Project: GPCC00100

Sample ID: 682086017

Client ID: GPCC001

Matrix: WQ

Collect Date: 19-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	0.579	+/-0.890	1.55	+/-0.903	3.00	pCi/L			KP1	09/17/24	1126	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.87	+/-1.00	1.55	+/-1.05		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.29	+/-0.460	0.308	+/-0.531	1.00	pCi/L			MJ2	09/20/24	0932	2660996	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"	2661777	82.4	(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	

GEL LABORATORIES LLC

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Certificate of Analysis

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

Atlanta, Georgia 30308

Report Date: September 23, 2024

Contact: Joju Abraham

Project: Arkwright CCR Groundwater ComplianceRelog: Radiochemistry

Client Sample ID: ARK-AP1-FB-02

Project: GPCC00100

Sample ID: 682086018

Client ID: GPCC001

Matrix: WQ

Collect Date: 19-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	0.280	+/-0.985	1.80	+/-0.988	3.00	pCi/L			KP1	09/17/24	1125	2661777	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.669	+/-1.05	1.80	+/-1.05		pCi/L		1	TON1	09/23/24	1524	2665110	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.390	+/-0.361	0.572	+/-0.366	1.00	pCi/L			MJ2	09/20/24	0932	2660996	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"	2661777	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	

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 682086**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

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

Analytical Batch: 2665110

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682086001	ARK-APIGWA-1
682086002	ARK-APIGWA-2
682086003	ARK-APIPZ-1
682086004	ARK-APIPZ-2
682086005	ARK-APIPZ-3
682086006	ARK-APIPZ-4
682086007	ARK-APIPZ-5
682086008	ARK-APIPZ-7
682086009	ARK-APIPZ-8
682086010	ARK-APIPZ-9
682086011	ARK-APIPZ-10
682086012	ARK-APIPZ-11
682086013	ARK-API-EB-01
682086014	ARK-API-FD-01
682086015	ARK-API-FB-01
682086016	ARK-API-EB-02
682086017	ARK-API-FD-02
682086018	ARK-API-FB-02

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: 2661777

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682086001	ARK-APIGWA-1
682086002	ARK-APIGWA-2
682086003	ARK-APIPZ-1
682086004	ARK-APIPZ-2

682086005	ARK-APIPZ-3
682086006	ARK-APIPZ-4
682086007	ARK-APIPZ-5
682086008	ARK-APIPZ-7
682086009	ARK-APIPZ-8
682086010	ARK-APIPZ-9
682086011	ARK-APIPZ-10
682086012	ARK-APIPZ-11
682086013	ARK-API-EB-01
682086014	ARK-API-FD-01
682086015	ARK-API-FB-01
682086016	ARK-API-EB-02
682086017	ARK-API-FD-02
682086018	ARK-API-FB-02
1205832455	Method Blank (MB)
1205832456	682086001(ARK-APIGWA-1) Sample Duplicate (DUP)
1205832457	Laboratory Control Sample (LCS)

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: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2660996

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
682086001	ARK-APIGWA-1
682086002	ARK-APIGWA-2
682086003	ARK-APIPZ-1
682086004	ARK-APIPZ-2
682086005	ARK-APIPZ-3
682086006	ARK-APIPZ-4
682086007	ARK-APIPZ-5
682086008	ARK-APIPZ-7
682086009	ARK-APIPZ-8
682086010	ARK-APIPZ-9
682086011	ARK-APIPZ-10
682086012	ARK-APIPZ-11
682086013	ARK-API-EB-01
682086014	ARK-API-FD-01
682086015	ARK-API-FB-01
682086016	ARK-API-EB-02
682086017	ARK-API-FD-02
682086018	ARK-API-FB-02
1205830631	Method Blank (MB)

1205830632	682086001(ARK-APIGWA-1) Sample Duplicate (DUP)
1205830633	682086001(ARK-APIGWA-1) Matrix Spike (MS)
1205830634	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

Method Blank Criteria

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1205830631 (MB)	Radium-226	Result: 0.870 pCi/L > MDA: 0.789 pCi/L <= RDL: 1.00 pCi/L

Technical Information

Recounts

Samples 1205830631 (MB), 1205830632 (ARK-APIGWA-1DUP), 1205830634 (LCS), 682086001 (ARK-APIGWA-1), 682086006 (ARK-APIPZ-4), 682086008 (ARK-APIPZ-7), 682086014 (ARK-API-FD-01) and 682086016 (ARK-API-EB-02) were degassed and recounted to verify sample results. The second counts are reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1205830633 (ARK-APIGWA-1MS), 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 23, 2024
Page 1 of 2

Contact: Atlanta, Georgia
Joju Abraham
Workorder: 682086

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2661777										
QC1205832456	682086001	DUP									
Radium-228		U	1.94	U	-0.463	pCi/L	0		N/A	KP1	09/17/2411:26
		Uncert:	+/-1.34		+/-0.861						
		TPU:	+/-1.43		+/-0.861						
QC1205832457	LCS										
Radium-228		69.7			66.7	pCi/L	95.7	(75%-125%)	KP1		09/17/2411:26
		Uncert:			+/-4.15						
		TPU:			+/-17.5						
QC1205832455	MB										
Radium-228				U	-0.0841	pCi/L			KP1		09/17/2411:26
		Uncert:			+/-0.739						
		TPU:			+/-0.739						
Rad Ra-226											
Batch	2660996										
QC1205830632	682086001	DUP									
Radium-226			0.832		1.27	pCi/L	41.8	(0% - 100%)	MJ2		09/23/2411:34
		Uncert:	+/-0.628		+/-0.631						
		TPU:	+/-0.646		+/-0.661						
QC1205830634	LCS										
Radium-226		27.2			32.2	pCi/L	118	(75%-125%)	MJ2		09/23/2411:34
		Uncert:			+/-3.24						
		TPU:			+/-5.77						
QC1205830631	MB										
Radium-226					0.870	pCi/L			MJ2		09/23/2411:34
		Uncert:			+/-0.610						
		TPU:			+/-0.628						
QC1205830633	682086001	MS									
Radium-226		136	0.832		132	pCi/L	96	(75%-125%)	MJ2		09/20/2409:32
		Uncert:	+/-0.628		+/-11.1						
		TPU:	+/-0.646		+/-30.2						

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: 682086

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>2</u> of <u>2</u>		 GEL Laboratories LLC <small>Chemistry Radiochemistry Radiobiassay Specialty Analytics</small> Chain of Custody and Analytical Request		GEL Laboratories, LLC		
Project # <u>175569434</u>				2040 Savage Road		
GEL Quote #:				Charleston, SC 29407		
COC Number ⁽¹⁾ : <u>1</u> Sample Cooler(s): <u>5</u>				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 <u>1</u>		Fax: N/A		<-- Preservative Type (6)		
Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308		Should this sample be considered: (If yes, please supply isotopic info.) (7) Known or possible Hazards		Total number of containers Metals App. III (B, Cu) (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)		
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 <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⁾	Comments (task_code: ARK-CCR-ASSMT-2024S2)
ARK-APIPZ-10	08-19-24	1730	N	N	WG	
ARK-APIPZ-11	08-19-24	1320	N	N	WG	
ARK-API-EB-01	08-19-24	1200	EB	N	WQ	
ARK-API-FD-01	08-19-24	NA	FD	N	WQ	
ARK-API-FB-01	08-19-24	1330	FB	N	WQ	
ARK-API-EB-02	08-19-24	1730	EB	N	WQ	
ARK-API-FD-02	08-19-24	NA	FD	N	WQ	
ARK-API-FB-02	08-19-24	1410	FB	N	WQ	
Chain of Custody Signatures						TAT Requested: Normal: <input checked="" type="checkbox"/> Rush: <input type="checkbox"/> Specify: <input type="checkbox"/> (Subject to Surcharge)
Relinquished By (Signed)	Print Name	Date	Received by (signed)	Print Name	Date	Fax Results: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1 	Stantec	8/21/24	1 		8/21/24	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
2			2 		8/21/24 1400	Additional Remarks: Metals App. IV: Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl
3			3			For Lab Receiving Use Only: Custody Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: <u>0</u> °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 TSCA Regulated PCB = Polychlorinated biphenyls	LW= Listed Waste (F,K,P and U-listed wastes.) Waste code(s):	OT= Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, 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.)		

682138 682097 682084
 682142 682098
 682086 682093
 AP
 682097
 WT 8/26/24

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GEL</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 <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. 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 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> <u>ARC-A RAMW-8 (2 of 3) plastic 1000 has 8/19/24</u>			

TEMP: See above with containers

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

List of current GEL Certifications as of 23 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



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.: 92747247

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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CERTIFICATIONS

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747247

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

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SAMPLE SUMMARY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747247

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92747247001	ARK-BC-0.3	Water	08/12/24 10:04	08/13/24 13:25
92747247002	ARK-BC-0.1	Water	08/12/24 10:20	08/13/24 13:25
92747247003	ARK-OR-0.8	Water	08/13/24 09:03	08/13/24 13:25
92747247004	ARK-OR-0.1	Water	08/13/24 10:38	08/13/24 13:25
92747247005	ARK-OR-0.3	Water	08/13/24 10:00	08/13/24 13:25
92747247006	ARK-OR+0.25	Water	08/13/24 11:00	08/13/24 13:25

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SAMPLE ANALYTE COUNT

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747247

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92747247001	ARK-BC-0.3	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747247002	ARK-BC-0.1	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747247003	ARK-OR-0.8	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747247004	ARK-OR-0.1	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747247005	ARK-OR-0.3	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92747247006	ARK-OR+0.25	EPA 6010D	AJM	5	PASI-GA
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	DL1	1	PASI-GA
		SM 2320B-2011	SMS	2	PASI-A
		EPA 9056A	CDC	3	PASI-A

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SAMPLE ANALYTE COUNT

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
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.: 92747247

Sample: ARK-BC-0.3		Lab ID: 92747247001		Collected: 08/12/24 10:04		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 14:00	7440-42-8		
Potassium	2.3	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:00	7440-09-7		
Sodium	8.5	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:00	7440-23-5	M1	
Calcium	11.5	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:00	7440-70-2	M1	
Magnesium	4.9	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:00	7439-95-4	M1	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	1	08/14/24 09:52	08/14/24 16:10	7440-36-0		
Arsenic	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:10	7440-38-2		
Barium	0.048	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:10	7440-39-3		
Beryllium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:10	7440-41-7		
Cadmium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:10	7440-43-9		
Chromium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:10	7440-47-3		
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:10	7440-48-4		
Lead	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:10	7439-92-1		
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:10	7439-93-2		
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:10	7439-98-7		
Selenium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:10	7782-49-2		
Thallium	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:10	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	1	08/14/24 10:30	08/14/24 15:40	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	135	mg/L	25.0	1		08/15/24 10:49			
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	55.7	mg/L	5.0	1		08/14/24 16:35			
Alkalinity, Total as CaCO3	55.7	mg/L	5.0	1		08/14/24 16:35			
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	7.5	mg/L	1.0	1		08/14/24 13:12	16887-00-6		
Fluoride	ND	mg/L	0.10	1		08/14/24 13:12	16984-48-8		
Sulfate	7.6	mg/L	1.0	1		08/14/24 13:12	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

Sample: ARK-BC-0.1		Lab ID: 92747247002	Collected: 08/12/24 10:20		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	0.051	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:16	7440-42-8	
Potassium	2.8	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:16	7440-09-7	
Sodium	9.3	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:16	7440-23-5	
Calcium	15.1	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:16	7440-70-2	
Magnesium	6.1	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:16	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Antimony	ND	mg/L	0.0030	1	08/14/24 09:52	08/14/24 16:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:15	7440-38-2	
Barium	0.014	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:15	7440-39-3	
Beryllium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:15	7440-41-7	
Cadmium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:15	7440-43-9	
Chromium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:15	7440-48-4	
Lead	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:15	7439-92-1	
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:15	7439-98-7	
Selenium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:15	7782-49-2	
Thallium	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:15	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA						
Mercury	ND	mg/L	0.00020	1	08/14/24 10:30	08/14/24 15:43	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	120	mg/L	25.0	1		08/15/24 10:49		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity,Bicarbonate (CaCO3)	59.3	mg/L	5.0	1		08/14/24 16:55		
Alkalinity, Total as CaCO3	59.3	mg/L	5.0	1		08/14/24 16:55		
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville						
Chloride	7.5	mg/L	1.0	1		08/14/24 13:54	16887-00-6	
Fluoride	ND	mg/L	0.10	1		08/14/24 13:54	16984-48-8	
Sulfate	14.7	mg/L	1.0	1		08/14/24 13:54	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

Sample: ARK-OR-0.8		Lab ID: 92747247003	Collected: 08/13/24 09:03		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	0.059	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:19	7440-42-8	
Potassium	3.3	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:19	7440-09-7	
Sodium	10.1	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:19	7440-23-5	
Calcium	6.4	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:19	7440-70-2	
Magnesium	2.2	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:19	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Antimony	ND	mg/L	0.0030	1	08/14/24 09:52	08/14/24 16:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:32	7440-38-2	
Barium	0.018	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:32	7440-39-3	
Beryllium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:32	7440-41-7	
Cadmium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:32	7440-43-9	
Chromium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:32	7440-48-4	
Lead	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:32	7439-92-1	
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:32	7439-98-7	
Selenium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:32	7782-49-2	
Thallium	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:32	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA						
Mercury	ND	mg/L	0.00020	1	08/14/24 10:30	08/14/24 15:46	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	88.0	mg/L	25.0	1		08/16/24 14:19		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity,Bicarbonate (CaCO3)	29.8	mg/L	5.0	1		08/14/24 17:16		
Alkalinity, Total as CaCO3	29.8	mg/L	5.0	1		08/14/24 17:16		
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville						
Chloride	7.7	mg/L	1.0	1		08/14/24 14:08	16887-00-6	
Fluoride	ND	mg/L	0.10	1		08/14/24 14:08	16984-48-8	
Sulfate	9.4	mg/L	1.0	1		08/14/24 14:08	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

Sample: ARK-OR-0.1		Lab ID: 92747247004	Collected: 08/13/24 10:38		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	0.056	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:23	7440-42-8	
Potassium	3.1	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:23	7440-09-7	
Sodium	9.6	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:23	7440-23-5	
Calcium	6.2	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:23	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:23	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Antimony	ND	mg/L	0.0030	1	08/14/24 09:52	08/14/24 16:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:36	7440-38-2	
Barium	0.041	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:36	7440-39-3	
Beryllium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:36	7440-41-7	
Cadmium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:36	7440-43-9	
Chromium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:36	7440-47-3	
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:36	7440-48-4	
Lead	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:36	7439-92-1	
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:36	7439-98-7	
Selenium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:36	7782-49-2	
Thallium	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:36	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA						
Mercury	ND	mg/L	0.00020	1	08/14/24 10:30	08/14/24 15:48	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	74.0	mg/L	25.0	1		08/19/24 12:34		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity,Bicarbonate (CaCO3)	30.0	mg/L	5.0	1		08/14/24 17:30		
Alkalinity, Total as CaCO3	30.0	mg/L	5.0	1		08/14/24 17:30		
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville						
Chloride	7.7	mg/L	1.0	1		08/14/24 14:22	16887-00-6	
Fluoride	ND	mg/L	0.10	1		08/14/24 14:22	16984-48-8	
Sulfate	9.5	mg/L	1.0	1		08/14/24 14:22	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

Sample: ARK-OR-0.3		Lab ID: 92747247005	Collected: 08/13/24 10:00		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	0.057	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:34	7440-42-8	
Potassium	3.1	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:34	7440-09-7	
Sodium	9.6	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:34	7440-23-5	
Calcium	6.1	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:34	7440-70-2	
Magnesium	2.1	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:34	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA						
Antimony	ND	mg/L	0.0030	1	08/14/24 09:52	08/14/24 16:40	7440-36-0	
Arsenic	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:40	7440-38-2	
Barium	0.013	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:40	7440-39-3	
Beryllium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:40	7440-41-7	
Cadmium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:40	7440-43-9	
Chromium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:40	7440-47-3	
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:40	7440-48-4	
Lead	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:40	7439-92-1	
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:40	7439-93-2	
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:40	7439-98-7	
Selenium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:40	7782-49-2	
Thallium	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:40	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA						
Mercury	ND	mg/L	0.00020	1	08/14/24 10:30	08/14/24 15:51	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA						
Total Dissolved Solids	73.0	mg/L	25.0	1		08/19/24 12:35		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville						
Alkalinity,Bicarbonate (CaCO3)	29.7	mg/L	5.0	1		08/14/24 17:36		
Alkalinity, Total as CaCO3	29.7	mg/L	5.0	1		08/14/24 17:36		
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville						
Chloride	7.7	mg/L	1.0	1		08/14/24 14:36	16887-00-6	
Fluoride	ND	mg/L	0.10	1		08/14/24 14:36	16984-48-8	
Sulfate	9.4	mg/L	1.0	1		08/14/24 14:36	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

Sample: ARK-OR+0.25		Lab ID: 92747247006		Collected: 08/13/24 11:00		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	0.057	mg/L	0.040	1	08/15/24 16:46	08/19/24 14:38	7440-42-8		
Potassium	3.1	mg/L	0.50	1	08/15/24 16:46	08/19/24 14:38	7440-09-7		
Sodium	9.8	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:38	7440-23-5		
Calcium	6.2	mg/L	1.0	1	08/15/24 16:46	08/19/24 14:38	7440-70-2		
Magnesium	2.1	mg/L	0.050	1	08/15/24 16:46	08/19/24 14:38	7439-95-4		
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	1	08/14/24 09:52	08/14/24 16:44	7440-36-0		
Arsenic	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:44	7440-38-2		
Barium	0.034	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:44	7440-39-3		
Beryllium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:44	7440-41-7		
Cadmium	ND	mg/L	0.00050	1	08/14/24 09:52	08/14/24 16:44	7440-43-9		
Chromium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:44	7440-47-3		
Cobalt	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:44	7440-48-4		
Lead	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:44	7439-92-1		
Lithium	ND	mg/L	0.030	1	08/14/24 09:52	08/14/24 16:44	7439-93-2		
Molybdenum	ND	mg/L	0.010	1	08/14/24 09:52	08/14/24 16:44	7439-98-7		
Selenium	ND	mg/L	0.0050	1	08/14/24 09:52	08/14/24 16:44	7782-49-2		
Thallium	ND	mg/L	0.0010	1	08/14/24 09:52	08/14/24 16:44	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	1	08/14/24 10:30	08/14/24 15:54	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	57.0	mg/L	25.0	1		08/19/24 12:36			
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	30.4	mg/L	5.0	1		08/14/24 17:43			
Alkalinity, Total as CaCO3	30.4	mg/L	5.0	1		08/14/24 17:43			
9056 IC anions 28 Days		Analytical Method: EPA 9056A Pace Analytical Services - Asheville							
Chloride	7.8	mg/L	1.0	1		08/14/24 14:49	16887-00-6		
Fluoride	ND	mg/L	0.10	1		08/14/24 14:49	16984-48-8		
Sulfate	9.5	mg/L	1.0	1		08/14/24 14:49	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

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: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

METHOD BLANK: 4512090 Matrix: Water
Associated Lab Samples: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

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.: 92747247

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: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

METHOD BLANK: 4509771 Matrix: Water
Associated Lab Samples: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	08/14/24 15:37	
Arsenic	mg/L	ND	0.0050	08/14/24 15:37	
Barium	mg/L	ND	0.0050	08/14/24 15:37	
Beryllium	mg/L	ND	0.00050	08/14/24 15:37	
Cadmium	mg/L	ND	0.00050	08/14/24 15:37	
Chromium	mg/L	ND	0.0050	08/14/24 15:37	
Cobalt	mg/L	ND	0.0050	08/14/24 15:37	
Lead	mg/L	ND	0.0010	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	
Selenium	mg/L	ND	0.0050	08/14/24 15:37	
Thallium	mg/L	ND	0.0010	08/14/24 15:37	

LABORATORY CONTROL SAMPLE: 4509772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.11	108	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Cadmium	mg/L	0.1	0.11	105	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.11	108	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	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
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	100	103	75-125	3	20	
Barium	mg/L	18.5 ug/L	0.1	0.1	0.12	0.12	106	106	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.11	0.11	109	108	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747247

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4509773 4509774												
Parameter	Units	92746959001	MS	MSD	MS	MSD	MS	MSD	% Rec	RPD	Max	Qual
		Result	Spike Conc.	Spike Conc.								
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.11	0.11	104	104	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.097	102	97	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.10	0.099	100	98	75-125	1	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	
Selenium	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

QC Batch: 875505 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

METHOD BLANK: 4509737 Matrix: Water
Associated Lab Samples: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	08/14/24 14:45	

LABORATORY CONTROL SAMPLE: 4509738

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4509739 4509740

Parameter	Units	92745452001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	100	100	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747247

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: 92747247001, 92747247002

METHOD BLANK: 4511546

Matrix: Water

Associated Lab Samples: 92747247001, 92747247002

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.: 92747247

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: 92747247003

METHOD BLANK: 4513596 Matrix: Water
Associated Lab Samples: 92747247003

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.: 92747247

QC Batch: 876606 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: 92747247004, 92747247005, 92747247006

METHOD BLANK: 4515292 Matrix: Water
Associated Lab Samples: 92747247004, 92747247005, 92747247006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	08/19/24 12:33	

LABORATORY CONTROL SAMPLE: 4515293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	418	104	80-120	

SAMPLE DUPLICATE: 4515294

Parameter	Units	92747247004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	74.0	75.0	1	10	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

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: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

METHOD BLANK: 4509947 Matrix: Water
Associated Lab Samples: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

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	

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QUALITY CONTROL DATA

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

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: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

METHOD BLANK: 4509648 Matrix: Water
Associated Lab Samples: 92747247001, 92747247002, 92747247003, 92747247004, 92747247005, 92747247006

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	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747247

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

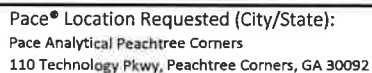
Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747247

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92747247001	ARK-BC-0.3	EPA 3010A	875955	EPA 6010D	876037
92747247002	ARK-BC-0.1	EPA 3010A	875955	EPA 6010D	876037
92747247003	ARK-OR-0.8	EPA 3010A	875955	EPA 6010D	876037
92747247004	ARK-OR-0.1	EPA 3010A	875955	EPA 6010D	876037
92747247005	ARK-OR-0.3	EPA 3010A	875955	EPA 6010D	876037
92747247006	ARK-OR+0.25	EPA 3010A	875955	EPA 6010D	876037
92747247001	ARK-BC-0.3	EPA 3005A	875521	EPA 6020B	875636
92747247002	ARK-BC-0.1	EPA 3005A	875521	EPA 6020B	875636
92747247003	ARK-OR-0.8	EPA 3005A	875521	EPA 6020B	875636
92747247004	ARK-OR-0.1	EPA 3005A	875521	EPA 6020B	875636
92747247005	ARK-OR-0.3	EPA 3005A	875521	EPA 6020B	875636
92747247006	ARK-OR+0.25	EPA 3005A	875521	EPA 6020B	875636
92747247001	ARK-BC-0.3	EPA 7470A	875505	EPA 7470A	875591
92747247002	ARK-BC-0.1	EPA 7470A	875505	EPA 7470A	875591
92747247003	ARK-OR-0.8	EPA 7470A	875505	EPA 7470A	875591
92747247004	ARK-OR-0.1	EPA 7470A	875505	EPA 7470A	875591
92747247005	ARK-OR-0.3	EPA 7470A	875505	EPA 7470A	875591
92747247006	ARK-OR+0.25	EPA 7470A	875505	EPA 7470A	875591
92747247001	ARK-BC-0.3	SM 2540C-2015	875851		
92747247002	ARK-BC-0.1	SM 2540C-2015	875851		
92747247003	ARK-OR-0.8	SM 2540C-2015	876190		
92747247004	ARK-OR-0.1	SM 2540C-2015	876606		
92747247005	ARK-OR-0.3	SM 2540C-2015	876606		
92747247006	ARK-OR+0.25	SM 2540C-2015	876606		
92747247001	ARK-BC-0.3	SM 2320B-2011	875570		
92747247002	ARK-BC-0.1	SM 2320B-2011	875570		
92747247003	ARK-OR-0.8	SM 2320B-2011	875570		
92747247004	ARK-OR-0.1	SM 2320B-2011	875570		
92747247005	ARK-OR-0.3	SM 2320B-2011	875570		
92747247006	ARK-OR+0.25	SM 2320B-2011	875570		
92747247001	ARK-BC-0.3	EPA 9056A	875472		
92747247002	ARK-BC-0.1	EPA 9056A	875472		
92747247003	ARK-OR-0.8	EPA 9056A	875472		
92747247004	ARK-OR-0.1	EPA 9056A	875472		
92747247005	ARK-OR-0.3	EPA 9056A	875472		
92747247006	ARK-OR+0.25	EPA 9056A	875472		

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

92747247


Page 23 of 25

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):	Plant Arkwright SWS	Purchase Order # (if applicable):	GPC82474-0003
		Quote #:	
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:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CX), Leachate (LL), Biosolid (BS), Other (OT)

[illegible]

Additional Instructions from Pace®: ARK-CSURF-ASSMT-2024S2	Collected By: (Printed Name) Signature:	
---	---	--

Relinquished by/Company: (Signature) <i>P. M. Green / Arcadis</i>	Date/Time: <i>8/13/2013 1325</i>	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)

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) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other
Analysis Requested	

App. IV Metals + Hg	<div>Lab Use Only</div> <div> <div>Proj. Mgr: Maiya Parks</div> <div>AcctNum / Client ID:</div> <div>Table #:</div> <div>Profile / Template: 15836</div> <div>Prelog / Bottle Ord. ID: EZ 3144736</div> <div>Sample Comment</div> </div>
App. III Metals - B, Ca	
Metals - K, Mg, Na	
Alkalinity (Total/BiCarb)	
C, F, SO4	
TDS	
Radium 226, 228 + Total Radium	

[illegible]

Customer Remarks / Special Conditions / Possible Hazards:					
# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:

	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#: 92747247

PM: MP

Due Date: 08/20/24

CLIENT: GA-ArcadAtI

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client
☐ Commercial ☐ Pace ☐ Other: _____Custody Seal Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: 8/13/24 ON

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen?

☐ Yes ☐ No ☒ N/A

Thermometer:

☐ IR Gun ID:

230

Type of Ice:

☒ Wet☐ Blue☐ None

Cooler Temp:

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:	WS			
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

*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 #

WO#: 92747247

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#	CC	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 Na2SO3 (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)		
1				2				2																								
2				2				2																								
3				2				2																								
4				2				2																								
5				2				2																								
6				2				2																								
7																																
8																																
9																																
10																																
11																																
12																																

pH Adjustment Log for Preserved Samples

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



August 27, 2024

Priya Jacob
ARCADIS - Atlanta
2839 Paces Ferry Rd
Suite 900
Atlanta, GA 30339

RE: Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747261

Dear Priya Jacob:

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 - Greensburg

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
Jennifer Kolbe, Stantec Consulting
Laura Midkiff, Southern Company
Noelia Muskus Ruiz, Georgia Power
Tina Sullivan, ERM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747261

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92747261001	ARK-BC-0.3	Water	08/12/24 10:04	08/13/24 13:25
92747261002	ARK-BC-0.1	Water	08/12/24 10:20	08/13/24 13:25
92747261003	ARK-OR-0.8	Water	08/13/24 09:03	08/13/24 13:25
92747261004	ARK-OR-0.1	Water	08/13/24 10:38	08/13/24 13:25
92747261005	ARK-OR-0.3	Water	08/13/24 10:00	08/13/24 13:25
92747261006	ARK-OR+0.25	Water	08/13/24 11:00	08/13/24 13:25

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SAMPLE ANALYTE COUNT

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92747261001	ARK-BC-0.3	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92747261002	ARK-BC-0.1	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92747261003	ARK-OR-0.8	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92747261004	ARK-OR-0.1	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92747261005	ARK-OR-0.3	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92747261006	ARK-OR+0.25	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Sample: ARK-BC-0.3 Lab ID: 92747261001 Collected: 08/12/24 10:04 Received: 08/13/24 13:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.0546 ± 0.633 (1.23) C:NA T:97%	pCi/L	08/26/24 16:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.106 ± 0.310 (0.697) C:80% T:89%	pCi/L	08/26/24 12:36	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.106 ± 0.943 (1.93)	pCi/L	08/27/24 16:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Sample: ARK-BC-0.1 Lab ID: 92747261002 Collected: 08/12/24 10:20 Received: 08/13/24 13:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	-0.497 ± 0.829 (1.67) C:NA T:92%	pCi/L	08/26/24 16:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	-0.126 ± 0.260 (0.649) C:77% T:88%	pCi/L	08/26/24 12:36	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.000 ± 1.09 (2.32)	pCi/L	08/27/24 16:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Sample: ARK-OR-0.8 Lab ID: 92747261003 Collected: 08/13/24 09:03 Received: 08/13/24 13:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 903.1	0.111 ± 0.576 (1.08) C:NA T:98%	pCi/L	08/26/24 16:50	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 904.0	0.290 ± 0.353 (0.746) C:86% T:84%	pCi/L	08/26/24 15:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.401 ± 0.929 (1.83)	pCi/L	08/27/24 16:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Sample: ARK-OR-0.1		Lab ID: 92747261004	Collected: 08/13/24 10:38	Received: 08/13/24 13:25	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	08/26/24 16:50	13982-63-3	
	EPA 903.1	0.0547 ± 0.387 (0.771) C:NA T:96%					
Radium-228	Pace Analytical Services - Greensburg			pCi/L	08/26/24 15:45	15262-20-1	
	EPA 904.0	0.104 ± 0.286 (0.644) C:84% T:90%					
Total Radium	Pace Analytical Services - Greensburg			pCi/L	08/27/24 16:56	7440-14-4	
	Total Radium Calculation	0.159 ± 0.673 (1.42)					

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Sample: ARK-OR-0.3		Lab ID: 92747261005	Collected: 08/13/24 10:00	Received: 08/13/24 13:25	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	08/26/24 16:50	13982-63-3	
	EPA 903.1	0.107 ± 0.469 (0.891) C:NA T:99%					
Radium-228	Pace Analytical Services - Greensburg			pCi/L	08/26/24 15:45	15262-20-1	
	EPA 904.0	0.0170 ± 0.322 (0.753) C:81% T:82%					
Total Radium	Pace Analytical Services - Greensburg			pCi/L	08/27/24 16:56	7440-14-4	
	Total Radium Calculation	0.124 ± 0.791 (1.64)					

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Sample: ARK-OR+0.25		Lab ID: 92747261006	Collected: 08/13/24 11:00	Received: 08/13/24 13:25	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	Pace Analytical Services - Greensburg			pCi/L	08/26/24 16:50	13982-63-3	
	EPA 903.1	-0.0544 ± 0.413 (0.863) C:NA T:97%					
Radium-228	Pace Analytical Services - Greensburg			pCi/L	08/26/24 15:45	15262-20-1	
	EPA 904.0	-0.240 ± 0.288 (0.728) C:83% T:85%					
Total Radium	Pace Analytical Services - Greensburg			pCi/L	08/27/24 16:56	7440-14-4	
	Total Radium Calculation	0.000 ± 0.701 (1.59)					

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

QC Batch: 689838

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92747261001, 92747261002, 92747261003, 92747261004, 92747261005, 92747261006

METHOD BLANK: 3359189

Matrix: Water

Associated Lab Samples: 92747261001, 92747261002, 92747261003, 92747261004, 92747261005, 92747261006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0886 ± 0.202 (0.326) C:NA T:98%	pCi/L	08/26/24 16:11	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

QC Batch:	689839	Analysis Method:	EPA 904.0
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	92747261001, 92747261002, 92747261003, 92747261004, 92747261005, 92747261006		

METHOD BLANK:	3359190	Matrix:	Water
Associated Lab Samples:	92747261001, 92747261002, 92747261003, 92747261004, 92747261005, 92747261006		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.871 ± 0.402 (0.659) C:79% T:91%	pCi/L	08/26/24 14:40	

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

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QUALIFIERS

Project: Plant Arkwright-CCR Ash Pond
Pace Project No.: 92747261

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.

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92747261

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92747261001	ARK-BC-0.3	EPA 903.1	689838		
92747261002	ARK-BC-0.1	EPA 903.1	689838		
92747261003	ARK-OR-0.8	EPA 903.1	689838		
92747261004	ARK-OR-0.1	EPA 903.1	689838		
92747261005	ARK-OR-0.3	EPA 903.1	689838		
92747261006	ARK-OR+0.25	EPA 903.1	689838		
92747261001	ARK-BC-0.3	EPA 904.0	689839		
92747261002	ARK-BC-0.1	EPA 904.0	689839		
92747261003	ARK-OR-0.8	EPA 904.0	689839		
92747261004	ARK-OR-0.1	EPA 904.0	689839		
92747261005	ARK-OR-0.3	EPA 904.0	689839		
92747261006	ARK-OR+0.25	EPA 904.0	689839		
92747261001	ARK-BC-0.3	Total Radium Calculation	692225		
92747261002	ARK-BC-0.1	Total Radium Calculation	692225		
92747261003	ARK-OR-0.8	Total Radium Calculation	692225		
92747261004	ARK-OR-0.1	Total Radium Calculation	692225		
92747261005	ARK-OR-0.3	Total Radium Calculation	692225		
92747261006	ARK-OR+0.25	Total Radium Calculation	692225		

REPORT OF LABORATORY ANALYSIS

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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:

Arcadis - Atlanta

Project #:

WO#: 92747261

Courier:

☐ Commercial☐ Fed Ex☐ UPS☐ USPS☒ Client☐ Pace☐ Other: _____

PM: MP

Due Date: 08/20/24

CLIENT: GA-ArcadAt1

Custody Seal Present?

☒ Yes☐ No

Seals Intact?

☒ Yes☐ No☐ N/A

Date/Initials Person Examining Contents: 8/13/24 NW

Packing Material:

☒ Bubble Wrap☐ Bubble Bags☐ None☐ Other

Biological Tissue Frozen?

☐ Yes☐ No☒ N/A

Thermometer:

☐ IR Gun ID:

230

Type of Ice:

☒ Wet☐ Blue☐ None

Cooler Temp:

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 type="checkbox"/> Yes	<input checked="" 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: W3				
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#: 92747261

*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-ArcadAt1

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)	BPIN	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-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
CC																													
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

B.4 Data Quality Evaluation



DATA USABILITY SUMMARY

Steven Elliott (Stantec) reviewed two data packages from GEL Laboratories (GEL) for the analysis of water samples collected August 19, 2024, at the Georgia Power Arkwright Plant AP1 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 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

Twelve (12) groundwater samples, two (2) field blanks, two (2) equipment blanks, and two (2) 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 and 3b 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 with the following exception:

SDG 682086

- Radium-226 was detected in the method blank for batch 2660996 (0.87 pCi/L) at a concentration below the laboratory Reporting Limit (RL). Associated detected sample results reported with results less than 10 times the blank concentration have been qualified as estimated with a high bias (J+).

Field Blanks. Field blanks (ARK-AP1-EB-01, ARK-AP1-FB-01, ARK-AP1-EB-02, and ARK-AP1-FB-02) were analyzed for the full suite of sample analyses and all analytes were not detected with the following exceptions:

SDG 682084

- TDS was detected in the blanks ARK-AP1-EB-01 and ARK-AP1-FB-02 at concentrations 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.

SDG 682086

- Radium-228 was detected in the blanks ARK-AP1-EB-01 (1.7 pCi/L) at a concentration below the laboratory Reporting Limit (RL). Associated sample results reported with results less than 10 times the blank concentration have been qualified as estimated with a high bias (J+).
- Radium-226 was detected in the blanks ARK-AP1-EB-01 (0.468 pCi/L) at a concentration below the laboratory Reporting Limit (RL). Associated sample results reported with results less than 10 times the blank concentration have been qualified as estimated with a high bias (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.

SDG 682084

- Chloride had a high MS percent recovery in sample ARK-AP1PZ-10 and has been qualified as estimated (J).
- Beryllium had high MS and PS (post spike) percent recoveries in sample ARK-AP1GWA-1 and has been qualified as estimated (J).

Laboratory Duplicates

Appropriate analytical duplicates were analyzed and RPDs were within the laboratory acceptance criteria.

Field Precision

Two sets of field duplicate samples were collected for this sampling event (see Table 3a and 3b 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

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than two times the RL are also considered acceptable (qualified “A*”). All field duplicate precision was considered acceptable with the following exception:

SDG 682084

- Results for TDS in the field duplicate pair ARK-AP1PZ-11/ ARK-AP1-FD-02 were greater than five times the RL and the RPD was greater than 25%. TDS has been qualified as estimated (J) in these samples.

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.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Field Identification	Laboratory Identification	SDG	Analyses	Sample Date
ARK-AP1GWA-1	682084001	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1GWA-2	682084002	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-1	682084003	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-2	682084004	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-3	682084005	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-4	682084006	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-5	682084007	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-7	682084008	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-8	682084009	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-9	682084010	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-10	682084011	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1PZ-11	682084012	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP2-EB-01	682084013	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024

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August 2024

Field Identification	Laboratory Identification	SDG	Analyses	Sample Date
ARK-AP2-FD-01	682084014	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP2-FB-01	682084015	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP2-EB-02	682084016	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP2-FD-02	682084017	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP2-FB-02	682084018	682084	6020B, 7470A, 300, 2540C, 353.2, 2320B	08/19/2024
ARK-AP1GWA-1	682086001	682086	903.1, 904	08/19/2024
ARK-AP1GWA-2	682086002	682086	903.1, 904	08/19/2024
ARK-AP1PZ-1	682086003	682086	903.1, 904	08/19/2024
ARK-AP1PZ-2	682086004	682086	903.1, 904	08/19/2024
ARK-AP1PZ-3	682086005	682086	903.1, 904	08/19/2024
ARK-AP1PZ-4	682086006	682086	903.1, 904	08/19/2024
ARK-AP1PZ-5	682086007	682086	903.1, 904	08/19/2024
ARK-AP1PZ-7	682086008	682086	903.1, 904	08/19/2024
ARK-AP1PZ-8	682086009	682086	903.1, 904	08/19/2024
ARK-AP1PZ-9	682086010	682086	903.1, 904	08/19/2024
ARK-AP1PZ-10	682086011	682086	903.1, 904	08/19/2024
ARK-AP1PZ-11	682086012	682086	903.1, 904	08/19/2024
ARK-AP2-EB-01	682086013	682086	903.1, 904	08/19/2024
ARK-AP2-FD-01	682086014	682086	903.1, 904	08/19/2024
ARK-AP2-FB-01	682086015	682086	903.1, 904	08/19/2024
ARK-AP2-EB-02	682086016	682086	903.1, 904	08/19/2024
ARK-AP2-FD-02	682086017	682086	903.1, 904	08/19/2024
ARK-AP2-FB-02	682086018	682086	903.1, 904	08/19/2024

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Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification / Code	Reason for Qualification
ARK-AP1PZ-11	TDS	J / FD1	High FD RPD
ARK-AP1-FD-02	TDS	J / FD1	High FD RPD
ARK-AP1GWA-1	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1GWA-2	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-1	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-2	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-3	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-5	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-7	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-8	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-9	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-9	Radium 228	J+ / BFL	Detected in FB
ARK-AP1PZ-10	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-11	Radium 226	J+ / BLL, BFL	Detected in MB & FB
ARK-AP1PZ-10	Chloride	J / MS1	High MS %R
ARK-AP1GWA-1	Beryllium	J / MS1	High MS %R

BFL – Blank Field Low – detected in the field blank (FB) below the RL

BLL – Blank Lab Low – detected in the laboratory blank (MB) below the RL

FD1 - Field duplicate had high RPD

J – estimated result

J+ – estimated data with a high bias

MS1 – matrix spike had high percent recovery

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Table 3a – Field Precision

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD ^a	Qualified
ARK-AP1GWA-2/ ARK-AP1-FD-01	Chloride	2.13	2.15	0.9%	A
	Fluoride	0.0788 J	0.0706 J	<5*RL, <2*RL	A*
	Sulfate	0.982	1.09	<5*RL, <2*RL	A*
	Boron	0.0505	0.0483	<5*RL, <2*RL	A*
	Barium	0.0403	0.0396	1.8%	A
	Chromium	0.00345 J	0.00324 J	<5*RL, <2*RL	A*
	Cobalt	0.00177	0.00180	<5*RL, <2*RL	A*
	Calcium	6.58	6.65	1.1%	A
	TDS	57.0	62.0	8.4%	A
	Radium 226	2.37	0.431 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.

Table 3b – Field Precision

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD ^a	Qualified
ARK-AP1PZ-11/ ARK-AP1-FD-02	Chloride	1.33	1.32	0.8%	A
	Fluoride	0.106	0.105	<5*RL, <2*RL	A*
	Sulfate	42.3	43.0	1.6%	A
	Boron	0.152	0.159	<5*RL, <2*RL	A*
	Barium	0.0194	0.0198	2.0%	A
	Calcium	24.7	25.1	1.6%	A
	Molybdenum	0.000492 J	0.000444 J	<5*RL, <2*RL	A*
	TDS	515	200	88%	J
	Radium 226	0.314 J	1.29	<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.