

**2023 SEMI-ANNUAL GROUNDWATER MONITORING REPORT** Plant Arkwright Ash Pond 1 (AP-1) Landfill Macon, Georgia

February 28, 2024

Prepared for:



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#### **CERTIFICATION STATEMENT**

This 2023 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.

Jennifer Kolbe, Ph.D., P.E. Principal



2/28/2024 Date

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2/28/2024 Date

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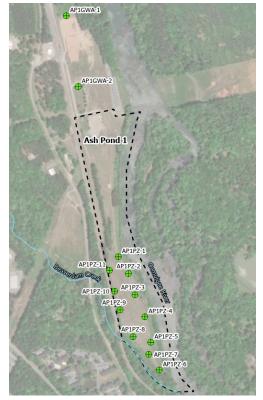
# **Executive Summary**

This summary of the *2023 Semi-Annual Groundwater Monitoring Report* provides the status of the groundwater monitoring program from July 2023 through December 2023 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 six 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



Plant Arkwright AP-1 Landfill

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. A minor modification was submitted to GA EPD on June 15, 2023 for the abandonment of AP1PZ-6 and removal of AP1PZ-6 from the groundwater monitoring system in support of initial construction. AP1PZ-6 was abandoned on June 21, 2023.

During the 2023 semi-annual reporting period, Stantec conducted one semi-annual groundwater sampling event in October 2023. 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.

# Acronyms / Abbreviations

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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
Georgia Power	Georgia Power Company
mg/L	Milligrams per Liter
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 Site
Stantec	Stantec Consulting Services, Inc.
US EPA	United States Environmental Protection Agency

# 1.0 Introduction

This 2023 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. Per the 2018 CCR permit submittal, Georgia Power has elected to remove CCR material from AP-1 Landfill and place it in a lined landfill. This interim plan is a minor modification to Solid Waste Permit Number 011-030D(LI), as requested by GA EPD on March 23, 2021. Groundwater monitoring at the Site will be conducted in accordance with this Groundwater Monitoring Plan until the new coal combustion residuals (CCR) unit solid waste handling permit is issued and a permanent groundwater monitoring network is established for AP-1 Landfill. This 2023 semi-annual report documents the activities completed between July 2023 and December 2023. One groundwater monitoring event was conducted during this monitoring period in October 2023.

## 1.1 Site Description and Background

Plant Arkwright is located in Bibb County, Georgia, approximately six 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 two 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. Because the unit ceased receiving waste prior to October 19, 2015, the AP-1 Landfill is exempt from the requirements in Title 40 Code of Federal Regulations (40 CFR) Part 257 Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, as specified in 40 CFR §257.50 (d) and (e). As such, 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.

## 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

#### 2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill 1.0 Introduction

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 biotitegranite gneiss, schist, and 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 seven 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 PWR 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 piezometerswere installed to evaluate the uppermost occurrence of groundwater at the Site and from the groundwater monitoring system for AP-1 Landfill (Figure 2).

#### 2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill 1.0 Introduction

Slug testing data from the Site reflects a range of hydraulic conductivities from 10<sup>-6</sup> to 10<sup>-3</sup> centimeters per second in the water table (overburden) hydrostratigraphic unit (Jacobs, 2021). Groundwater level gauging data from the Site show stable water level trends and the potentiometric surface maps depict 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 were located to serve as upgradient or downgradient monitoring points based on the groundwater flow direction (Table 1). The piezometer locations are depicted in Figure 2. Due to access constraints and safety concerns, downgradient wells 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 2023 and December 2023. Samples were collected from each of the 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.

Piezometer AP1PZ-6 was abandoned in June of 2023 due to construction activities involving ash removal on the southern tip of the landfill and groundwater sampling for the Fall of 2023 was completed for piezometer AP1PZ-6 on June 13, 2023 prior to the abandonment. The remaining AP-1 Landfill piezometers were sampled in October 2023.

## 2.1 Piezometer Installation and Maintenance

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 October 2023, the piezometers were inspected. There was no need for corrective actions for the wells at AP-1 Landfill during this reporting period.

#### 2.2 Additional 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 October 2023, as depicted in Figure 2. Surface water samples were collected in accordance with U.S. Environmental Protection Agency (US EPA) Region 4 *Science and Ecosystem Support Division Operating Procedures for Surface Water Sampling* (SESDPROC-201-R4, December 16, 2016).

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. The laboratory report associated with the October 2023 sampling event is 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 June (AP1PZ-6 only) and October 2023 for AP-1 Landfill includes 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 at the Site.

#### 3.1 Groundwater Elevation Measurements and Flow Direction

Prior to each sampling event, the static groundwater levels were measured in each piezometer at AP-1 Landfill. The water level indicator was properly decontaminated between each piezometer. Groundwater elevations are summarized in Table 3. The recorded groundwater levels were used to determine the groundwater elevations in each piezometer and develop potentiometric surface contour maps (Figure 3). Review of the figures 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 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,

$$V = \frac{K * i}{n_{\rho}}$$

Where:

 $V = Groundwater flow velocity \left(\frac{feet}{day}\right)$   $K = Average hydraulic conductivity of the aquifer \left(\frac{feet}{day}\right)$   $i = Horizontal hydraulic gradient \left(\frac{feet}{foot}\right)$   $n_e = Effective porosity (unitless)$ 

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 October 9, 2023 are presented in Table 4. The results for groundwater flow velocities ranged from 0.005 feet/day in the southern portion of the Site to 0.122 feet/day in the northeastern portion of the Site (1.9 and 44.6 feet/year, respectively) on October 9, 2023. The observed groundwater flow velocities calculated for this monitoring event are also generally consistent with expected velocities in the regolith-upper bedrock aquifers of the Georgia Piedmont.

## 3.3 Groundwater Sampling

Groundwater samples were collected in June (AP1PZ-6 only) and October 2023. Sampling procedures were conducted in accordance with US EPA Region 4 *Science and Ecosystem Support Division Operating Procedures for Groundwater Sampling* (SESDPROC-301-R4, April 26, 2017). 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 three (3) consecutive readings measured at five-minute intervals:

- pH ± 0.1 Standard Units
- Specific conductance ± 5 %
- ± 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 5 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 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 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 June (AP1PZ-6 only) and October 2023, and the corresponding formal analytical reports are in Appendix B.

The October 2023 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 for October 2023, and the corresponding formal analytical report can be found in Appendix B.

## 3.5 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.

#### 2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill 3.0 Sample Methodology & Analyses

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 June (AP1PZ-6 only) and October 2023 groundwater and surface water sampling events as reported by the laboratory. When values are followed by a "J" flag, this indicates that the value is an estimated analyte concentration detected between the method detection limit and the laboratory reporting limit. The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. Radium values followed by a "U" flag indicate 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 October 2023 groundwater monitoring event and for the October 2023 surface water sampling event, are summarized in Table 5 and Table 6, respectively. The complete laboratory 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 2023 Semi-Annual Groundwater Monitoring Report was prepared to fulfill the requirements of the Interim Groundwater Monitoring Plan (Jacobs, 2021). Due to construction activities at the Site, groundwater sampling for the Fall of 2023 was completed for piezometer AP1PZ-6 on June 13, 2023, for the AP-1 Landfill. The remaining AP-1 Landfill piezometers were sampled in October 2023.. The next semi-annual sampling event is scheduled for January 2024. The January 2024 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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- US EPA, 2016, Science and Ecosystem Support Division Operating Procedures for Surface Water Sampling SESDPROC-201-R4, December 16, 2016.
- US EPA, 2017, Science and Ecosystem Support Division Operating Procedures for Groundwater Sampling SESDPROC-301-R4, April 26, 2017.

2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill

# TABLES

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

Well	Installation Date	Northing <sup>(1)</sup>	Easting <sup>(1)</sup>	Top of Casing Elevation (feet NAVD88) <sup>(2)</sup>	Ground Surface Elevation (feet NAVD88) <sup>(2)</sup>	Top of Screen Elevation (feet NAVD88) <sup>(3)</sup>	Bottom of Screen Elevation (feet NAVD88) <sup>(3)</sup>	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 20 and 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
	Location	October 9-11, 2023
Purpose of S	ampling Event	Monitoring
AP-1 LANDFIL	L INTERIM MONITORING	WELL NETWORK
AP1GWA-1	Upgradient	Х
AP1GWA-2	Upgradient	Х
AP1PZ-1	Downgradient	Х
AP1PZ-2	Downgradient	Х
AP1PZ-3	Downgradient	Х
AP1PZ-4	Downgradient	Х
AP1PZ-5	Downgradient	Х
AP1PZ-6*	Downgradient	Х
AP1PZ-7	Downgradient	Х
AP1PZ-8	Downgradient	Х
AP1PZ-9	Downgradient	Х
AP1PZ-10	Downgradient	Х
AP1PZ-11	Downgradient	Х

Notes:

X - Indicates well sampled during event

\* AP1PZ-6 was sampled on June 13, 2023 and abandoned on June 20 and 21, 2023.

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

#### Macon, Georgia

Well ID	Top of Casing Elevation (feet NAVD88) <sup>(1)</sup>	Depth to Water (feet below TOC) <sup>(2)</sup>	Groundwater Elevation (feet NAVD88) <sup>(1)</sup>				
Measurement Date		10/9/2023					
AP1GWA-1	345.44	26.96	318.48				
AP1GWA-2	341.42	19.67	321.75				
AP1PZ-1	338.97	45.73	293.24				
AP1PZ-2	339.58	43.04	296.54				
AP1PZ-3	338.57	43.65	294.92				
AP1PZ-4	338.36	48.02	290.34				
AP1PZ-5	339.81	49.55	290.26				
AP1PZ-7	340.91	50.93	289.98				
AP1PZ-8	338.31	47.34	290.97				
AP1PZ-9	337.62	42.14	295.48				
AP1PZ-10	338.38	39.96	298.42				
AP1PZ-11	338.98	41.23	297.75				

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).

	Macon, Georgia									
Potentiometric Map Date	Location	in Wel (h <sub>1</sub> ,	r Elevations I Pairs h <sub>2</sub> ) et)	Change in Elevation (Δh) (feet)	Distance Measured (L) (feet)	Hydraulic Gradient (i) (feet/foot)	Average Hydraulic Conductivity (K) (feet/day)	Estimated Effective Porosity (n <sub>e</sub> )	Calculated Groundwater Flow Velocity (V) (feet/day)	Calculated Groundwater Flow Velocity (V) (feet/year)
October 9, 2023	AP1PZ-10 to AP1PZ-5	298.42	290.26	8.16	842	0.010	0.11	0.2	0.005	1.9
October 9, 2023	AP1PZ-11 to AP1PZ-1	297.75	293.24	4.51	222	0.020	1.20	0.2	0.122	44.6

TABLE 4 GROUNDWATER FLOW VELOCITY CALCULATIONS Georgia Power Company - Plant Arkwright

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, OCTOBER 2023 Georgia Power Company - Plant Arkwright

AP-1 Landfill Macon, Georgia

								Well ID						
	Substance	AP1GWA-1	AP1GWA-2	AP1PZ-1	AP1PZ-2	AP1PZ-3	AP1PZ-4	AP1PZ-5	AP1PZ-6	AP1PZ-7	AP1PZ-8	AP1PZ-9	AP1PZ-10	AP1PZ-11
		10/9/2023	10/9/2023	10/9/2023	10/9/2023	10/10/2023	10/10/2023	10/10/2023	6/13/2023	10/10/2023	10/10/2023	10/11/2023	10/10/2023	10/10/2023
	Boron	0.108	0.0734	0.355	0.470	1.71	4.02	7.16	6.95	2.76	2.88	0.707	0.357	0.143
≡	Calcium	19.3	6.91	33.2	205	434	418	589	460	383	311	72.3	90.4	27.6
×	Chloride	1.77	1.81	3.13	2.98	4.77	5.59	7.01	7.77	6.29	2.72	8.68	10.9	1.20
ENDIX	Fluoride	0.426	0.225	0.279	0.262	< 0.165	0.565	0.409 J	< 0.500	0.270 J	0.292	0.964	0.647	0.202
APPE	Sulfate	58.3	2.17	105	801	1290	1370	1970	2480	1370	680	308	231	54.3
A	TDS	139	52.0	211	1170	1830	2030	3080	3340	1960	1370	527	499	198
	рН	5.29	5.99	6.41	5.98	5.61	6.28	6.05	5.33	6.27	6.6	5.17	6.3	6.67
	Antimony	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00300	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100
	Arsenic	0.00219 J	0.00255 J	0.00222 J	< 0.00200	< 0.00200	0.00302 J	0.00493 J	0.00324 J	0.00399 J	0.00326 J	0.00224 J	0.00382 J	0.00303 J
	Barium	0.0609	0.0580	0.0422	0.0300	0.0254	0.0395	0.0362	0.0228	0.0421	0.0449	0.0252	0.0347	0.0234
	Beryllium	0.00187	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	< 0.000200	0.00172	< 0.000200	< 0.000200	0.000523	< 0.000200	< 0.000200
_	Cadmium	0.000410 J	< 0.000300	< 0.000300	0.000689 J	0.00195	< 0.000300	< 0.000300	< 0.00100	< 0.000300	0.00125	0.00112	< 0.000300	< 0.000300
APPENDIX IV	Chromium	0.00462 J	0.00340 J	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.0100	< 0.00300	< 0.00300	< 0.00300	< 0.00300	< 0.00300
â	Cobalt	0.00672	0.0112	0.000610 J	0.169	0.0639	0.000518 J	0.0631	0.415	0.00123	0.00118	0.100	0.00140	< 0.000300
Ē	Lead	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.00200	< 0.000500	< 0.000500	< 0.000500	< 0.000500	< 0.000500
API	Lithium	0.00944 J	< 0.00300	0.00408 J	0.0214	0.0659	0.00657 J	0.343	0.00923 J	0.00302 J	0.00315 J	0.145	0.0189	< 0.00300
	Mercury	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.000200	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670	< 0.0000670
	Molybdenum	< 0.000200	< 0.000200	0.000437 J	< 0.000200	0.000299 J	0.00398	0.0437	< 0.00100	0.00367	0.729	0.000323 J	0.00214	0.000342 J
	Radium	4.31	6.78	4.93	7.40	12.5	5.33	4.50	3.69	1.64 U	3.27	5.37	11.6	1.77 U
	Selenium	0.00299 J	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150	0.00251 J	< 0.00150	< 0.00150	< 0.00150	< 0.00150	< 0.00150
	Thallium	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.00200	< 0.000600	< 0.000600	< 0.000600	< 0.000600	< 0.000600

#### 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. J indicates the constituent was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value.

Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.

5. TDS indicates total dissolved solids.

6. 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.

7. AP1PZ-6 sampled on June 13, 2023 prior to abandonment on June 21, 2023.

# TABLE 6 ANALYTICAL DATA SUMMARY - SURFACE WATER, OCTOBER 2023 Georgia Power Company - Plant Arkwright

AP-1 Landfill

#### Macon, Georgia

				Surface Wate	r Sample Location		
	Substance	OR-0.8	OR-0.3	OR-0.1	OR+0.25	BC-0.3	BC-0.1
		10/3/2023	10/3/2023	10/3/2023	10/3/2023	10/3/2023	10/3/2023
	Boron	<0.027	<0.027	<0.027	<0.027	<0.027	0.045
≡	Calcium	7.4	7.2	7.4	7.2	12.9	15.0
XI	Chloride	9.0	9.0	8.9	9.0	9.3	9.2
U.	Fluoride	<0.050	<0.050	<0.050	<0.050	0.16	0.14
APPENDIX III	Sulfate	6.4	6.3	6.4	6.5	11.6	14.7
AF	TDS	72.0	66.0	72.0	67.0	99.0	110
	рН	7.32	7.45	7.71	7.74	7.77	7.72
	Antimony	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
	Arsenic	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037	<0.0037
	Barium	0.021	0.020	0.021	0.019	0.037	0.036
	Beryllium	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054
	Cadmium	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011
≤ ×	Chromium	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
Ĩ	Cobalt	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039
APPENDIX IV	Lead	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012
ΡF	Lithium	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073
-	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074
	Radium	0.106	0.160	0.549	0.187	0.302	0.297
	Selenium	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
	Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
۶	Total Alkalinity	32.7	32.4	33.1	33.1	60.9	61.8
ŽË	Bicarbonate Alkalinity	32.7	32.4	33.1	33.1	60.9	61.8
Ĕ	Magnesium	2.0	2.0	2.0	2.0	5.5	6.4
ADDITIONAL ANALYTES	Potassium	3.6	3.5	3.3	3.4	2.7	2.8
₹₹	Sodium	9.4	9.1	9.5	9.2	11.2	11.3

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).

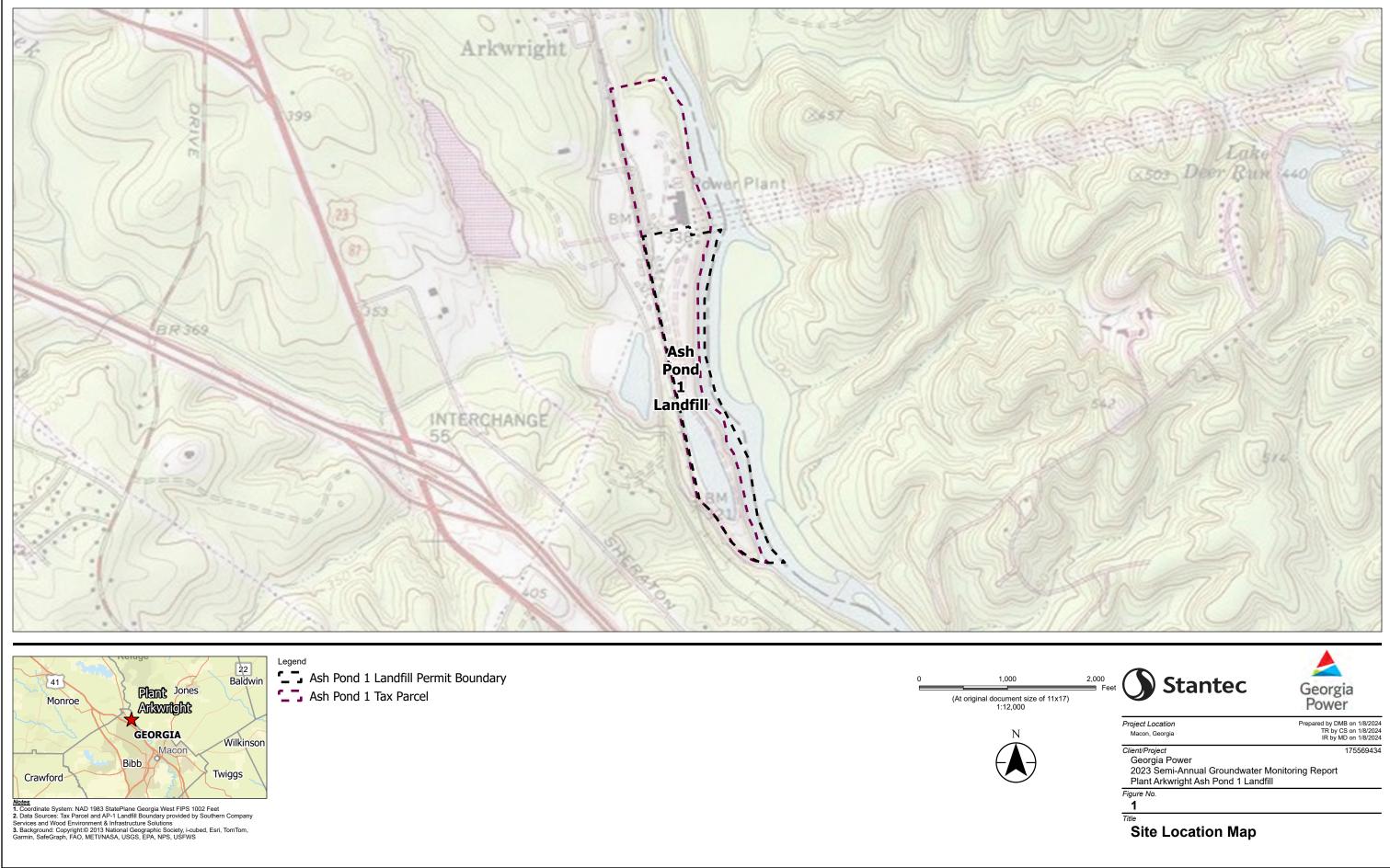
3. < indicates the constituent was not detected above the analytical method detection limit (MDL)

4. TDS indicates total dissolved solids.

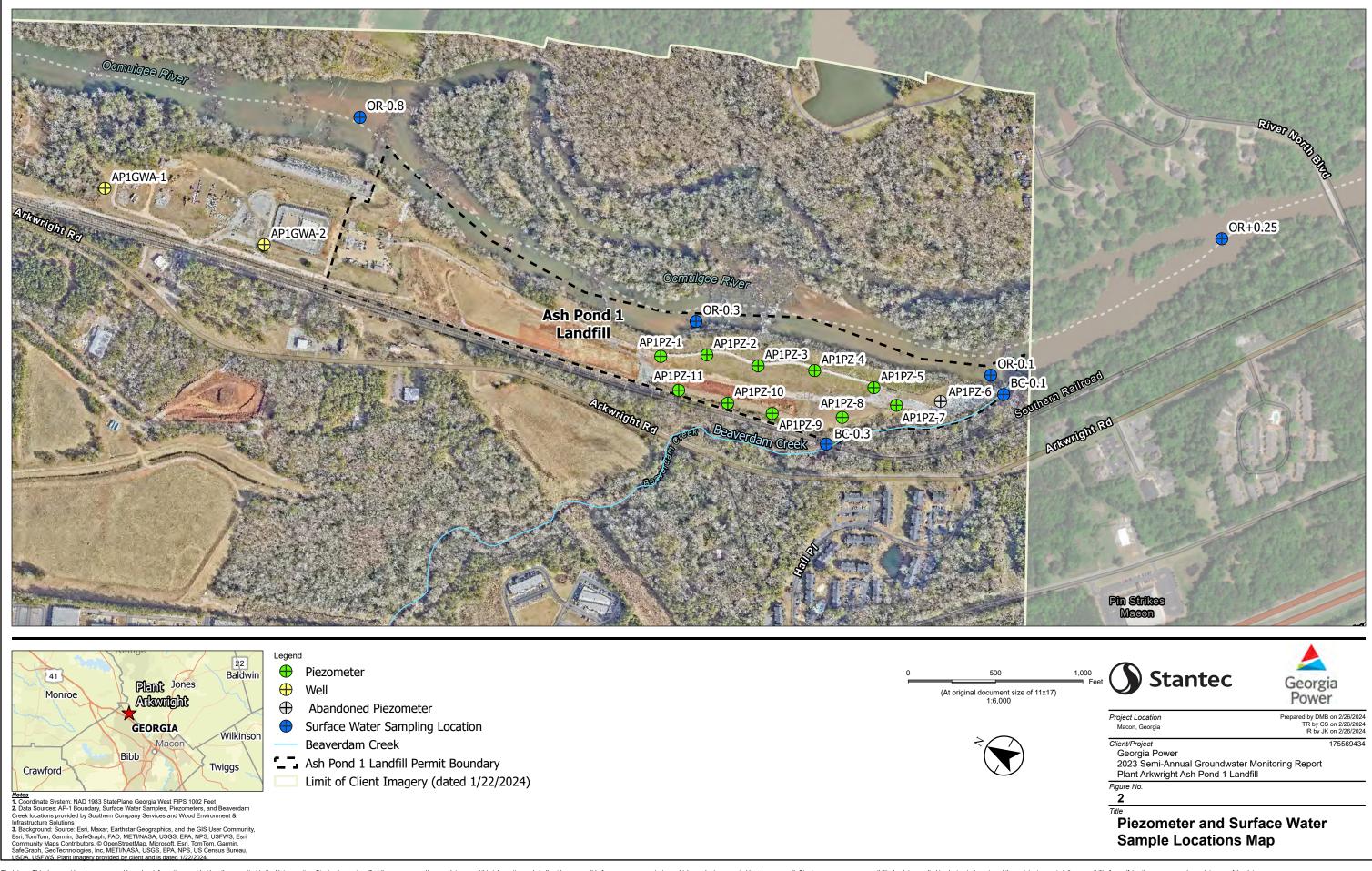
5. U indicates the constituent was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.

2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill

# **FIGURES**



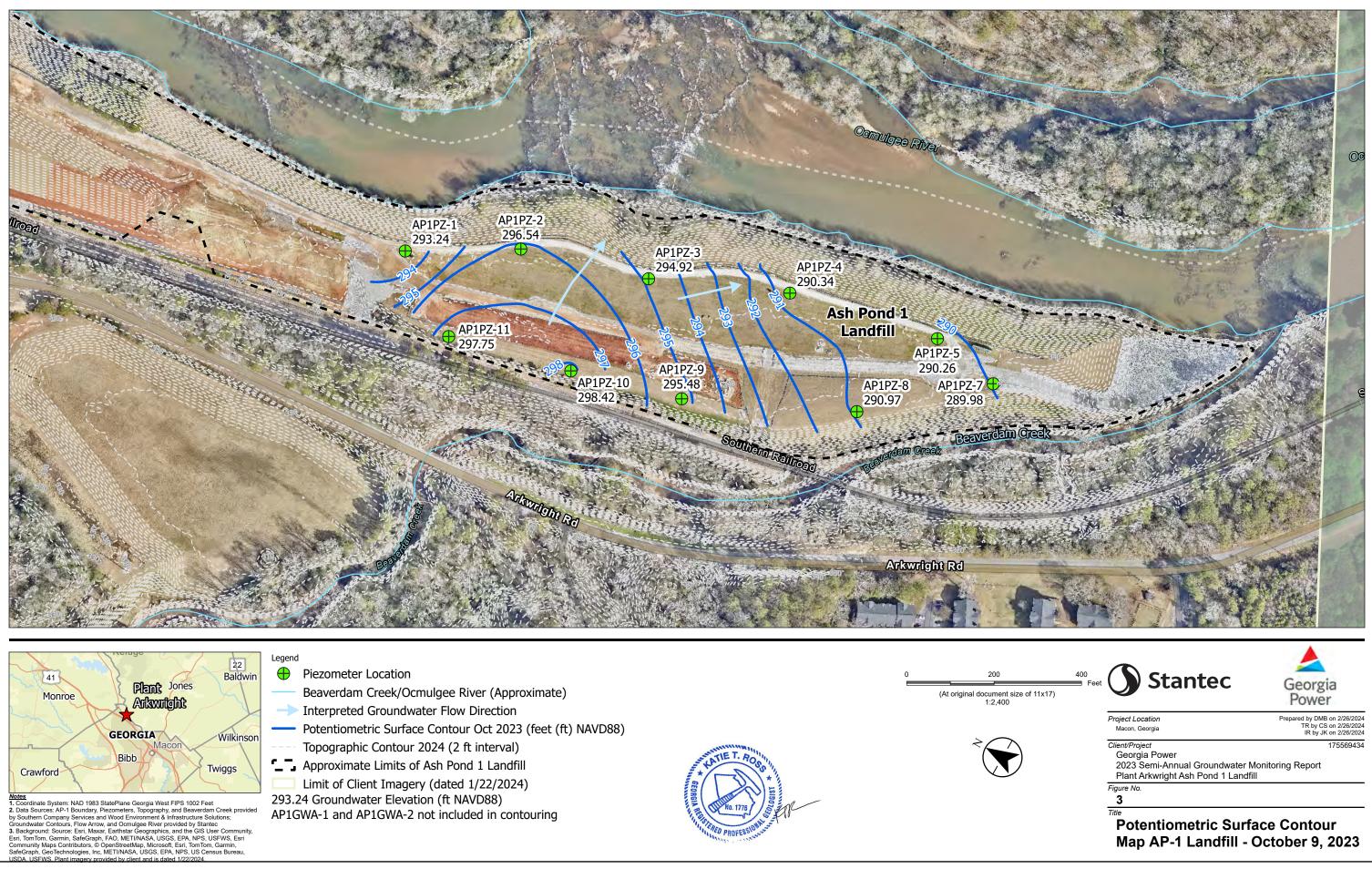
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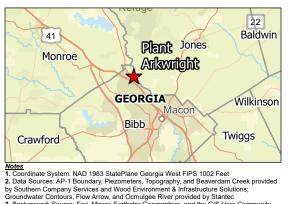






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2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill

# APPENDIX A Well Inspections

		MONITORING WELL INSPECTIO	N CHE	CKLIST		🚺 Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright				
	Plant Address:	5001 Arkwright Road, Macon, GA 31210				
	Project Number:	175569434				
	Goal/Task:	Hydrogeological investigation				
	Goul/Task.					
	Date:	10/9/2023				
	Monitoring Well No.:	AP1GWA-1				
	Priority Maintenance					
		Description	Yes	No	NA	Comments
1	Location/Identificatio		163	NO	NA	Comments
a	Is the well visible and		Х			
b	Is the well properly id	dentified with the correct well ID?	Х			
С		affic area and does the well require protection		Х		
d	Is the drainage arour	nd the well acceptable? (no standing water, nor is bus drainage flow path)	Х			
				I	l	L
2	Protective Casing					
а	Is the protective casi secured?	ng free from apparent damage and able to be	Х			
b	Is the casing free of a	degradation or deterioration?	Х			
С	Does the casing have	e a functioning weep hole?	Х			
d	Is the annular space with pea gravel/sand	between casings clear of debris and water, or filled d?	Х			
е	Is the well locked an	d is the lock in good condition?	Х			
3	Surface pad					
а		od condition (not cracked or broken)?	Х			
		d away from the protective casing?	Х			
С		mplete contact with the protective casing?	X			
d		nplete contact with the ground surface and ned by erosion, animal burrows, and does not	Х			
е		ean (not covered with sediment or debris)?	Х			
		, , , , , , , , , , , , , , , , , , ,				
4	Internal casing					
a	Does the cap prever	nt entry of foreign material into the well?	X			
b	Is the casing free of k objects (such as baile	kinks or bends, or any obstructions from foreign ers)?	х			
		ented for equilibrium of air pressure?	Х			
		early marked on the inner casing?	X			
e		ell consistent with the original well log?	X			<u> </u>
f		(or does the PVC move easily when touched or t by hand due to lack of grout or use of slip	Х			
	couplings in construc	, .				
	Sampling (Groundwo					
a	Does well recharge o	adequately when purged?	X			
b		g equipment installed, is it in good condition and oved groundwater plan for the facility?	X			
с	Does the well require	e redevelopment (low-flow, turbid)?		Х		
Con	nments: Include inspe	action details, including items requiring repair or main N/A	tenanc	e.		·
	oared By / Date:	John Myer 10/9/2023				
DL/S	ME Review By / Date					

		MONITORING WELL INSPECTIO	N CHE	ECKLIST	•	🚺 Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright				
	Plant Address:	5001 Arkwright Road, Macon, GA 31210				
	Project Number:	175569434				
	Goal/Task:	Hydrogeological investigation				
	Date:	10/9/2023				
	Monitoring Well No.:	AP1GWA-2				
	Priority Maintenance	Item Identified: Missing dedicated tub	bing.			
		Description	¥	N-		Comments
1	Location/Identification	Description	Yes	No	NA	Comments
	Is the well visible and		Х			
		lentified with the correct well ID?	Х			
		affic area and does the well require protection	Х			Well is located at the confluence
	from traffic?					of two high-traffic roads; truck can
d		nd the well acceptable? (no standing water, nor is ous drainage flow path)	х			
0	Protoctive Casing			1		
	Protective Casing	ng free from apparent damage and able to be	х			+
ч	secured?	ng nee nom apparem aamage and able 10 be		1		
b	Is the casing free of a	degradation or deterioration?	Х			
	0	e a functioning weep hole?	Х			
d	Is the annular space with pea gravel/sand	between casings clear of debris and water, or filled d?	Х			
е	Is the well locked an	d is the lock in good condition?	Х			
	Surface pad		V			
		od condition (not cracked or broken)? d away from the protective casing?	X			
		nplete contact with the protective casing?	X			
		nplete contact with the ground surface and	X			
-		ned by erosion, animal burrows, and does not				
е	Is the pad surface cl	ean (not covered with sediment or debris)?	Х			
				1		
	Internal casing	nt entry of foreign material into the well?	х			
			X			
U	objects (such as baile	inks or bends, or any obstructions from foreign ers)?	~			
С	Is the well properly v	ented for equilibrium of air pressure?	Х			
d	Is the survey point cle	early marked on the inner casing?		Х		
		ell consistent with the original well log?	Х			
f		(or does the PVC move easily when touched or t by hand due to lack of grout or use of slip tion)	х			
	a					
	Sampling (Groundwo	ater Wells Only) adequately when purged?	х		ļ	<u> </u>
b		, , , ,	^	х		Dedicated length of tubing is
5		g equipment installed, is it in good condition and oved groundwater plan for the facility?				missing from gauging portal.
С	Does the well require	redevelopment (low-flow, turbid)?		Х		Well breathes at 400 mL/min.
		ction details, including items requiring repair or main o sides by concrete barriers. Defunct wasp nest inside Well pad and surrounding area are in need of mil	e outer	casing		
	oared By / Date:	Dylan Quintal				10/12/2023
DL/S	SME Review By / Date	:				

		MONITORING WELL INSPECTIO	N CHE	CKLIST	r	🚺 Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright		•		
	Plant Address:	5001 Arkwright Road, Macon, GA 31210			•	
	Project Number:	175569434				
	Goal/Task:	Hydrogeological investigation			•	
					•	
	Date:	10/9/2023				
	Monitoring Well No.:	AP1PZ-1			•	
	Priority Maintenance	Item Identified: N/A			•	
		Description	Yes	No	NA	Comments
1	Location/Identification		163	NO	110	Comments
а	Is the well visible and	accessible?	Х			
b	Is the well properly ic	dentified with the correct well ID?	Х			
С	Is the well in a high tr from traffic?	affic area and does the well require protection		Х		
d		nd the well acceptable? (no standing water, nor is bus drainage flow path)	Х			
_						
	Protective Casing		N.			
	secured?	ng free from apparent damage and able to be	Х			
		degradation or deterioration?	Х			
		e a functioning weep hole?	X			
	with pea gravel/sand		Х			
е	Is the well locked an	d is the lock in good condition?	Х			
	Surface pad		X			
		od condition (not cracked or broken)?	X			
		d away from the protective casing? mplete contact with the protective casing?	X			
		mplete contact with the ground surface and	X			
u		ned by erosion, animal burrows, and does not	~			
е	Is the pad surface cl	ean (not covered with sediment or debris)?	Х			
			1	1	1	
	Internal casing					
		nt entry of foreign material into the well?	X			<u> </u>
	objects (such as bail	-	Х			
		ented for equilibrium of air pressure?	X			ļ
		early marked on the inner casing?	X			<u> </u>
		ell consistent with the original well log? (or does the PVC move easily when touched or	X			<u> </u>
f		t by hand due to lack of grout or use of slip	~			
	couplings in construct					
	Sampling (Groundwo		N.			ļ
	Does well recharge (	adequately when purged?	X			<u> </u>
b		g equipment installed, is it in good condition and oved groundwater plan for the facility?	х			
с	Does the well require	e redevelopment (low-flow, turbid)?		Х		
Cor	nments: Include inspe	ction details, including items requiring repair or main	tenanc	e.		
	pared By / Date:	N/A John Myer 10/9/2023				
DL/S	SME Review By / Date					

		MONITORING WELL INSPECTIO	N CHE	CKLIST		🚺 Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright				
	Plant Address:	5001 Arkwright Road, Macon, GA 31210				
	Project Number:	175569434				
	Goal/Task:	Hydrogeological investigation				
	Date:	10/12/2023				
	Monitoring Well No.:	AP1PZ-2				
	Priority Maintenance	Item Identified: N/A				
		Description	Yes	No	NA	Comments
	Location/Identification					-
	Is the well visible and		Х			
		entified with the correct well ID?	X			
С	from traffic?	affic area and does the well require protection	Х			Well is located on circuit road used exclusivey by pickup trucks
d		nd the well acceptable? (no standing water, nor is us drainage flow path)	Х			
2	Protective Casing					
		ng free from apparent damage and able to be	Х			
h		legradation or deterioration?	Х			<u> </u>
		e a functioning weep hole?	X			
	-	between casings clear of debris and water, or filled	Х			
е		d is the lock in good condition?	Х			
3	Surface pad					
а	Is the well pad in goo	od condition (not cracked or broken)?	Х			
		d away from the protective casing?	Х			
		nplete contact with the protective casing?	Х			
d		nplete contact with the ground surface and ned by erosion, animal burrows, and does not on	х			
е		ean (not covered with sediment or debris)?	Х			
	•	X Y				
	Internal casing					
		It entry of foreign material into the well?	X			
	objects (such as baile		Х			
		ented for equilibrium of air pressure?	Х			<u> </u>
		early marked on the inner casing?	X	$\square$		
		ell consistent with the original well log? (or does the PVC move easily when touched or	X			<u> </u>
		by hand due to lack of grout or use of slip	^			
5	Sampling (Groundwa	ter Wells Only)				
		adequately when purged?	Х			
b	If dedicated samplin	g equipment installed, is it in good condition and oved groundwater plan for the facility?	х			
6		redevelopment (low-flow, turbid)?		х		Well breathes at 300 mL/min.
С				^		
Con		ction details, including items requiring repair or main on two sides by concrete barriers. Ant hill located on			ıd; pre	sented no significant hazard.
	oared By / Date:	Dylan Quintal				10/12/2023
DL/S	ME Review By / Date:					

MONITORING WELL INSPECTION CHECKLIST						🚺 Stantec		
	Project Name:	Southern Company Arkwright						
	Plant Name:	Plant Arkwright	-					
	Plant Address:							
	Project Number:	175569434			-			
	Goal/Task:	Hydrogeological investigation			-			
	oodiy lask.				-			
	Date:	10/9/2023						
	Monitoring Well No.:	AP1PZ-3			-			
	Priority Maintenance	Item Identified: Grass cutting; Ant mo	und		-			
					-			
1	Location/Identification	Description	Yes	No	NA	Comments		
			Х					
b		dentified with the correct well ID?	X					
c		affic area and does the well require protection		Х				
d	from traffic?	nd the well acceptable? (no standing water, nor is	х					
u		bus drainage flow path)	~					
2	Protective Casing					1		
_	Is the protective casi	ng free from apparent damage and able to be	Х					
-	secured?	de energladia en elektristeria 2	V					
b		degradation or deterioration? e a functioning weep hole?	X					
c d	Is the annular space	between casings clear of debris and water, or filled	X					
е	with pea gravel/sand?     Is the well locked and is the lock in good condition?       X							
3	Surface pad							
а	Is the well pad in go	od condition (not cracked or broken)?	Х					
		d away from the protective casing?	Х					
С		mplete contact with the protective casing?	Х					
d	stable?(Not undermi	nplete contact with the ground surface and ned by erosion, animal burrows, and does not		х		Ant mound found; Grass needs to be cut		
е	move when stepped on).     Is the pad surface clean (not covered with sediment or debris)?     X							
-				1	1			
4	Internal casing							
а	Does the cap prever	nt entry of foreign material into the well?	Х					
b	Is the casing free of k objects (such as bail	xinks or bends, or any obstructions from foreign ers)?	Х					
С	Is the well properly v	ented for equilibrium of air pressure?	Х					
d		early marked on the inner casing?	Х					
е		ell consistent with the original well log?	Х					
f	can it be taken apar	(or does the PVC move easily when touched or t by hand due to lack of grout or use of slip	Х					
	couplings in construc	CTION						
5	Sampling (Groundwo	ater Wells Only)		r	r	1		
		adequately when purged?	Х					
b	If dedicated samplin	ig equipment installed, is it in good condition and oved groundwater plan for the facility?	X					
с		e redevelopment (low-flow, turbid)?		х				
Con	nments: Include inspe	iction details, including items requiring repair or main N/A	tenanc	e.				
Prep	oared By / Date:	John Myer 10/9/2023						
DL/S	SME Review By / Date	:						

		MONITORING WELL INSPECTIO	N CHE	CKLIST		🚺 Stantec
	Project Name:	roject Name: Southern Company Arkwright				
	Plant Name:	Plant Arkwright				
	Plant Address:	5001 Arkwright Road, Macon, GA 31210				
	Project Number:	175569434				
	Goal/Task:					
	Date:	10/12/2023				
	Monitoring Well No.:	AP1PZ-4				
	Priority Maintenance	Item Identified: N/A				
		Description	Yes	No	NA	Comments
	Location/Identification		1			
	Is the well visible and		Х			
		lentified with the correct well ID?	X			
	from traffic?	affic area and does the well require protection	Х			Well is located on circuit road used exclusivey by pickup trucks
d		nd the well acceptable? (no standing water, nor is bus drainage flow path)	Х			
6						
	Protective Casing		v			<u> </u>
	secured?	ng free from apparent damage and able to be	Х			
		degradation or deterioration?	Х			
	Is the annular space	e a functioning weep hole? between casings clear of debris and water, or filled	X X			
	with pea gravel/sand		V			
е	is the well locked and	d is the lock in good condition?	Х			
3	Surface pad					
		od condition (not cracked or broken)?	Х			
		d away from the protective casing?	Х			
		nplete contact with the protective casing?	Х			
d	stable?(Not undermi	nplete contact with the ground surface and ned by erosion, animal burrows, and does not	Х			
е	e Is the pad surface clean (not covered with sediment or debris)? X					
0			~			
	Internal casing					
		nt entry of foreign material into the well?	X			<u> </u>
b	Is the casing free of k objects (such as baile	inks or bends, or any obstructions from foreign ers)?	х			
		ented for equilibrium of air pressure?	Х			
		early marked on the inner casing?	X			<u> </u>
		ell consistent with the original well log? (or does the PVC move easily when touched or	X			<u> </u>
1		t by hand due to lack of grout or use of slip	^			
		•				•
	Sampling (Groundwo					
	Does well recharge o	adequately when purged?	X X			<u> </u>
b		g equipment installed, is it in good condition and oved groundwater plan for the facility?	~			
С	Does the well require	e redevelopment (low-flow, turbid)?		Х		Well breathes at 100 mL/min.
	Well is pr	ction details, including items requiring repair or main otected on two sides by concrete barriers. Small wai			l on we	
	pared By / Date:	Dylan Quintal				10/12/2023
DL/S	ME Review By / Date					

MONITORING WELL INSPECTION CHECKLIST						Stantec		
	Project Name:	Southern Company Arkwright						
	Plant Name:	Plant Arkwright		-				
	Plant Address:	5001 Arkwright Road, Macon, GA 31210			-			
		175569434			-			
	Project Number:				-			
	Goal/Task:	Hydrogeological investigation			-			
	Date:	10/9/2023						
	Monitoring Well No.:	AP1P7-5			-			
	-				-			
Priority Maintenance Item Identified: Grass Cutting								
				_				
,	l ti (l titi ti	Description	Yes	No	NA	Comments		
	Location/Identification		Х	<u> </u>	<u> </u>	1		
b		Indecessible ?	X					
c		affic area and does the well require protection	^	Х				
	from traffic?		x	~				
u		nd the well acceptable? (no standing water, nor is ous drainage flow path)	~					
2	Protective Casing			r	r	T		
	-	ng free from apparent damage and able to be	Х					
b		degradation or deterioration?	Х					
С		e a functioning weep hole?	X					
		between casings clear of debris and water, or filled	Х					
е		d is the lock in good condition?	Х					
3	Surface pad							
а	Is the well pad in goo	od condition (not cracked or broken)?	Х					
b	Is the well pad slope	d away from the protective casing?	Х					
С		nplete contact with the protective casing?	Х					
d		nplete contact with the ground surface and ned by erosion, animal burrows, and does not		х		Grass needs to be cut		
е		ean (not covered with sediment or debris)?	Х					
						•		
4	Internal casing							
	Does the cap prever	nt entry of foreign material into the well?	Х					
b	Is the casing free of k objects (such as bail	cinks or bends, or any obstructions from foreign ers)?	х					
С		ented for equilibrium of air pressure?	Х					
		early marked on the inner casing?	Х	L	L	ļ		
e		ell consistent with the original well log?	Х	L	L	ļ		
f		(or does the PVC move easily when touched or t by hand due to lack of grout or use of slip tion)	х					
						·		
5	Sampling (Groundwo	iter Wells Only)						
	Does well recharge of	adequately when purged?	Х					
b		g equipment installed, is it in good condition and oved groundwater plan for the facility?	х					
С	Does the well require	e redevelopment (low-flow, turbid)?		Х		<u> </u>		
						•		
Con	nments: Include inspe	ction details, including items requiring repair or main N/A	tenanc	e.				
	oared By / Date:	John Myer 10/9/2023						
DL/SME Review By / Date:								

		MONITORING WELL INSPECTIO	N CHE	CKLIST	г	Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright		-		
	Plant Address:	5001 Arkwright Road, Macon, GA 31210			-	
	Project Number:	175569434			-	
	Goal/Task:	Hydrogeological investigation			-	
					-	
	Date:	10/9/2023				
	Monitoring Well No.:	AP1PZ-7			-	
	Priority Maintenance	Item Identified: N/A			-	
					-	
		Description	Yes	No	NA	Comments
1	Location/Identification		103	NO	114	Connicins
а	Is the well visible and	l accessible?	Х			
b	Is the well properly ic	dentified with the correct well ID?	Х			
С	Is the well in a high tr from traffic?	affic area and does the well require protection		Х		
d		nd the well acceptable? (no standing water, nor is bus drainage flow path)	х			
	Protective Casing		~			<u> </u>
	secured?	ng free from apparent damage and able to be	Х			
		degradation or deterioration?	X			
		e a functioning weep hole?	X			<u> </u>
	with pea gravel/sand					
е	is the well locked an	d is the lock in good condition?	Х			L
	Surface pad					
		od condition (not cracked or broken)?	Х			
		d away from the protective casing?	X			
		mplete contact with the protective casing?	X			
u	Is the well pad in complete contact with the ground surface and X stable?(Not undermined by erosion, animal burrows, and does not move when stepped on).					
е		ean (not covered with sediment or debris)?	Х			
						-
	Internal casing					
		nt entry of foreign material into the well?	X			ļ
	objects (such as bail	-	Х			
		ented for equilibrium of air pressure?	Х	L	L	ļ
		early marked on the inner casing?	X			ļ
		ell consistent with the original well log? (or does the PVC move easily when touched or	X			<u> </u>
1		t by hand due to lack of grout or use of slip	^			
	couplings in construct					
	Sampling (Groundwo		N.		ļ	
	Does well recharge	adequately when purged?	X			<u> </u>
b		g equipment installed, is it in good condition and oved groundwater plan for the facility?	х			
с	Does the well require	e redevelopment (low-flow, turbid)?		Х		
Cor	nments: Include inspe	ction details, including items requiring repair or main N/A	tenanc	e.		
	pared By / Date:	John Myer 10/9/2023				
DL/S	SME Review By / Date					

		MONITORING WELL INSPECTIO	N CHE	CKLIST		🚺 Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright				
	Plant Address:	5001 Arkwright Road, Macon, GA 31210				
	Project Number:	175569434				
	Goal/Task:	Hydrogeological investigation				
		10/12/2023				
	Date:	10/12/2023				
	Monitoring Well No.:					
	Priority Maintenance	Item Identified: Access via wattles and land	dscapin	ıg.		
		Description	Yes	No	NA	Comments
	Location/Identificatio					
	Is the well visible and			Х		Well cannot be easily accessed
		entified with the correct well ID?	Х	V		
	from traffic?	affic area and does the well require protection	M	Х		
d		nd the well acceptable? (no standing water, nor is us drainage flow path)	Х			
2	Protective Casing					
	-	ng free from apparent damage and able to be	Х			
h		legradation or deterioration?	Х			+
		e a functioning weep hole?	X			
_	°	between casings clear of debris and water, or filled	Х			
е		d is the lock in good condition?	Х			
	Surface pad	od condition (not cracked or broken)?	Х			
		d away from the protective casing?	X			
		nplete contact with the protective casing?	Х			
d	stable?(Not undermin	nplete contact with the ground surface and ned by erosion, animal burrows, and does not	Х			
0	move when stepped		Х			
е	is the pad solidce cle	ean (not covered with sediment or debris)?	~			
4	Internal casing					
а	Does the cap preven	t entry of foreign material into the well?	Х			
b	Is the casing free of k objects (such as baile	inks or bends, or any obstructions from foreign ers)?	Х			
С	Is the well properly ve	ented for equilibrium of air pressure?	Х			
		early marked on the inner casing?	Х			
		ell consistent with the original well log?	Х			
f		(or does the PVC move easily when touched or t by hand due to lack of grout or use of slip tion)	Х			
r	S			<b></b>		
	Sampling (Groundwa	adequately when purged?	х			<u> </u>
b	If dedicated samplin	g equipment installed, is it in good condition and	X			
с		oved groundwater plan for the facility? redevelopment (low-flow, turbid)?		x		Well breathes at 100 mL/min.
0				~		
		ction details, including items requiring repair or main located behind wattles in less well-maintained area Dylan Quintal			caping	y maintenance. 10/12/2023
	ME Review By / Date:					10/12/2023
UL/S	THE REVIEW BY / DUIE.					

		MONITORING WELL INSPECTIO	N CHE	CKLIST	r	() Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright	-			
	Plant Address:	5001 Arkwright Road, Macon, GA 31210			-	
		175569434			-	
	Project Number: Goal/Task:	Hydrogeological investigation			-	
	GOUI/TUSK.	Hydrogeological investigation			-	
	Date:	10/9/2023				
	Monitoring Well No.:	AP1PZ-9			-	
	Priority Maintenance				-	
					-	
				_		
,		Description	Yes	No	NA	Comments
	Location/Identification		v	r	r	
b		dentified with the correct well ID?	X			
c		affic area and does the well require protection	^	Х		
	from traffic?		х	~		
u		nd the well acceptable? (no standing water, nor is bus drainage flow path)	^			
2	Protective Casing					
	-	ng free from apparent damage and able to be	Х			
b		degradation or deterioration?	Х			
С		e a functioning weep hole?	X			
	-	between casings clear of debris and water, or filled	X			
е		d is the lock in good condition?	Х			
3	Surface pad					
а	Is the well pad in go	od condition (not cracked or broken)?	Х			
b		d away from the protective casing?	Х			
С		mplete contact with the protective casing?	Х			
d		nplete contact with the ground surface and ned by erosion, animal burrows, and does not		х		Grass needs to be cut
е		ean (not covered with sediment or debris)?	Х			
4	Internal casing					
а	Does the cap prever	nt entry of foreign material into the well?	Х			
b	Is the casing free of objects (such as bail	xinks or bends, or any obstructions from foreign ers)?	Х			
С	Is the well properly v	ented for equilibrium of air pressure?	Х			
		early marked on the inner casing?	Х			
e		ell consistent with the original well log?	Х			ļ
f		(or does the PVC move easily when touched or t by hand due to lack of grout or use of slip stion)	х			
		·				•
5	Sampling (Groundwo	ater Wells Only)				
	Does well recharge	adequately when purged?	Х			
b		g equipment installed, is it in good condition and oved groundwater plan for the facility?	х			
С	Does the well require	e redevelopment (low-flow, turbid)?		Х		
Con	nments: Include inspe	ection details, including items requiring repair or main	tenanc	e.		
	pared By / Date:	N/A John Myer 10/9/2023				
DL/S	SME Review By / Date	:				

MONITORING WELL INSPECTIO	N CHE	CKLIST	•	Stantec		
Project Name: Southern Company Arkwright						
Plant Name: Plant Arkwright						
Plant Address: 5001 Arkwright Road, Macon, GA 31210						
Project Number: 175569434						
Goal/Task: Hydrogeological investigation						
<u>, , , , , , , , , , , , , , , , , , , </u>						
Date: 10/12/2023						
Monitoring Well No.: AP1PZ-10						
Priority Maintenance Item Identified: Tilted bollard.						
Description	Yes	No	NA	Comments		
Location/Identification						
a Is the well visible and accessible?		Х		Well cannot be easily seen or		
Is the well properly identified with the correct well ID?	Х	V				
Is the well in a high traffic area and does the well require protection from traffic?		х				
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Х					
Protective Casing     Is the protective casing free from apparent damage and able to be	х					
secured?						
o Is the casing free of degradation or deterioration?	Х					
c Does the casing have a functioning weep hole?	X					
I is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Х					
Is the well locked and is the lock in good condition?	Х					
3 Surface pad				1		
Is the well pad in good condition (not cracked or broken)?	Х					
Is the well pad sloped away from the protective casing?	Х					
Is the well pad in complete contact with the protective casing?	Х					
I Is the well pad in complete contact with the ground surface and stable? (Not undermined by erosion, animal burrows, and does not move when stepped on).	х					
Is the pad surface clean (not covered with sediment or debris)?	Х			Ant hill located on edge of well		
Internal casing	V					
Does the cap prevent entry of foreign material into the well?	X			<u> </u>		
objects (such as bailers)?						
Is the well properly vented for equilibrium of air pressure?	X					
I Is the survey point clearly marked on the inner casing? Is the depth of the well consistent with the original well log?	X					
Is the depth of the well consistent with the original well log? Is the casing stable? (or does the PVC move easily when touched or	X			<u> </u>		
can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	X					
Sampling (Groundwater Wells Only) Does well recharge adequately when purged?	Y					
	X			1		
If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?						
Does the well require redevelopment (low-flow, turbid)?		Х		Well breathes at 100 mL/min.		
omments: Include inspection details, including items requiring repair or main Southeast bollard does not stand completely vertically. Active ant hill locc need of landscaping maint	ted on	edge o	f well p	bad. Area surrounding well pad in		
repared By / Date: Dylan Quintal				10/12/2023		
L/SME Review By / Date:						

		MONITORING WELL INSPECTIO	N CHE	CKLIST	•	🚺 Stantec
	Project Name:	Southern Company Arkwright				
	Plant Name:	Plant Arkwright				
	Plant Address:	5001 Arkwright Road, Macon, GA 31210				
	Project Number:	175569434				
	Goal/Task:	Hydrogeological investigation				
		10/10/2022				
	Date:	10/12/2023				
	Monitoring Well No.:	AP1PZ-11				
	Priority Maintenance	Item Identified: Access via wattles and land	dscapin	ıg.		
		Description	Yes	No	NA	Comments
	Location/Identificatio	n				•
	Is the well visible and			Х		Well cannot be easily seen or
		entified with the correct well ID?	Х			
	from traffic?	affic area and does the well require protection		Х		
d		nd the well acceptable? (no standing water, nor is us drainage flow path)	Х			
0	Protective Casing					<b></b>
	Protective Casing Is the protective casi	ng free from apparent damage and able to be	Х			<u> </u>
	secured?					
	0	legradation or deterioration? e a functioning weep hole?	X			
		between casings clear of debris and water, or filled	X			
е		d is the lock in good condition?	Х			
3	Surface pad					
		od condition (not cracked or broken)?	Х			
		d away from the protective casing?	X			
		nplete contact with the protective casing? nplete contact with the ground surface and	X			
u		ned by erosion, animal burrows, and does not	^			
е		ean (not covered with sediment or debris)?		Х		Ant hill located on edge of well
	Internal casing					
		It entry of foreign material into the well?	X			
	objects (such as baile		х			
		ented for equilibrium of air pressure?	Х			<u> </u>
		early marked on the inner casing?	X			<u> </u>
		ell consistent with the original well log? (or does the PVC move easily when touched or	X			<u> </u>
1		by hand due to lack of grout or use of slip	^			
5	Sampling (Groundwa	ter Wells Only)				
		adequately when purged?	х			<u> </u>
b	If dedicated samplin	g equipment installed, is it in good condition and oved groundwater plan for the facility?	х			
С		redevelopment (low-flow, turbid)?		х		Well breathes at 200 mL/min.
Cor		ction details, including items requiring repair or main located behind wattles in less well-maintained area			caping	g maintenance.
	oared By / Date:	Dylan Quintal				10/12/2023
DL/S	ME Review By / Date:					

2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill

# APPENDIX B Field Sampling Data and Analytical Data Reports

2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill

# B.1 Field Sampling Data

Test Date / Time: 10/9/2023 1:11:56 PM Project: Arkwright Operator Name: J. Myer

Location Name: AP1GWA-1	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
Latitude: 32.930019061764	Pump	Serial Number: 850751
Longitude: -83.7010088190436	Tubing Type: HDPE	
Well Diameter: 2 in	Pump Intake From TOC: 31.8 ft	
Casing Type: PVC	Estimated Total Volume Pumped:	
Screen Length: 10 ft	7500 ml	
Top of Screen: 26.8 ft	Flow Cell Volume: 90 ml	
Total Depth: 37.5 ft	Final Flow Rate: 300 ml/min Final	
Initial Depth to Water: 26.96 ft	Draw Down: 0.19 ft	

### **Test Notes:**

Heron Instruments Dipper-T ID: WL006 MP50 SN: 26 ID: 103 Pressure: 25 psi

### Weather Conditions:

Sunny 71 F

# Low-Flow Readings:

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/9/2023 1:11 PM	00:00	5.32 pH	22.31 °C	203.05 µS/cm	4.21 mg/L	2.44 NTU	188.7 mV	27.15 ft	300.00 ml/min
10/9/2023 1:16 PM	05:00	5.25 pH	20.71 °C	203.67 µS/cm	3.15 mg/L	2.52 NTU	161.0 mV	27.15 ft	300.00 ml/min
10/9/2023 1:21 PM	10:00	5.29 pH	20.66 °C	203.66 µS/cm	3.06 mg/L	2.04 NTU	180.8 mV	27.15 ft	300.00 ml/min
10/9/2023 1:26 PM	15:00	5.30 pH	20.62 °C	202.08 µS/cm	3.03 mg/L	2.10 NTU	145.2 mV	27.15 ft	300.00 ml/min
10/9/2023 1:31 PM	20:00	5.30 pH	20.62 °C	202.21 µS/cm	3.01 mg/L	2.30 NTU	138.7 mV	27.15 ft	300.00 ml/min
10/9/2023 1:36 PM	25:00	5.29 pH	20.66 °C	201.95 µS/cm	3.00 mg/L	3.10 NTU	135.2 mV	27.15 ft	300.00 ml/min

# Samples

Sample ID: Description:

ARK-AP1GWA-1	1345 6 bottles Metals Radium TDS Anions
ARK-AP1-FB-01	1405         6 bottles         Metals         Radium         TDS         Anions         DI water provided by AIR

Test Date / Time: 10/9/2023 1:40:42 PM Project: Arkwright Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1,	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
AP1GWA-2	Pump	Serial Number: 850762
Latitude: 32.9273346601797	Tubing Type: HDPE	
Longitude: -83.7005548551679	Pump Intake From TOC: 25.3 ft	
Well Diameter: 2 in	Estimated Total Volume Pumped:	
Casing Type: PVC	16000 ml	
Screen Length: 10 ft	Flow Cell Volume: 90 ml	
Top of Screen: 20.5 ft	Final Flow Rate: 400 ml/min Final	
Total Depth: 31.1 ft	Draw Down: 0 ft	
Initial Depth to Water: 19.67 ft		

#### **Test Notes:**

Heron Dipper-T SN: 11FF2205014ML MP50 SN: 22 ID: 103 Pressure: 35 psi

### Weather Conditions:

Sunny, 73F

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/9/2023 1:40 PM	00:00	6.01 pH	21.68 °C	87.35 µS/cm	3.50 mg/L	27.50 NTU	49.9 mV	19.67 ft	400.00 ml/min
10/9/2023 1:45 PM	05:00	6.00 pH	21.80 °C	91.00 µS/cm	3.22 mg/L	18.20 NTU	16.1 mV	19.67 ft	400.00 ml/min
10/9/2023 1:50 PM	10:00	6.00 pH	21.83 °C	93.36 µS/cm	3.01 mg/L	15.10 NTU	-2.5 mV	19.67 ft	400.00 ml/min
10/9/2023 1:55 PM	15:00	6.00 pH	21.87 °C	94.40 µS/cm	2.90 mg/L	11.30 NTU	-5.1 mV	19.67 ft	400.00 ml/min
10/9/2023 2:00 PM	20:00	5.95 pH	21.91 °C	94.79 µS/cm	2.86 mg/L	8.17 NTU	-16.2 mV	19.67 ft	400.00 ml/min
10/9/2023 2:05 PM	25:00	5.95 pH	21.84 °C	95.81 µS/cm	2.72 mg/L	7.42 NTU	-20.3 mV	19.67 ft	400.00 ml/min
10/9/2023 2:10 PM	30:00	5.98 pH	21.87 °C	96.42 µS/cm	2.59 mg/L	5.51 NTU	-26.6 mV	19.67 ft	400.00 ml/min
10/9/2023 2:15 PM	35:00	5.99 pH	21.93 °C	97.22 µS/cm	2.44 mg/L	3.99 NTU	-33.2 mV	19.67 ft	400.00 ml/min
10/9/2023 2:20 PM	40:00	5.99 pH	21.89 °C	97.80 µS/cm	2.36 mg/L	3.64 NTU	-37.9 mV	19.67 ft	400.00 ml/min

# Samples

Sample ID:	Description:
ARK-AP1GWA-2	Sample time: 1430 6 bottles: Metals, Anions, TDS, Radium
ARK-AP1-EB-01	6 bottles: Metals, Anions, TDS, Radium

Test Date / Time: 10/9/2023 3:31:25 PM Project: Arkwright Operator Name: J. Myer

Location Name: AP1PZ-1	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400	
Latitude: 32.9210574183589	Pump	Serial Number: 850751	
Longitude: -83.6987658217549	Tubing Type: HDPE		
Well Diameter: 2 in	Pump Intake From TOC: 82.6 ft		
Casing Type: PVC	Estimated Total Volume Pumped:		
Screen Length: 10 ft	4000 ml		
Top of Screen: 77 ft	Flow Cell Volume: 90 ml		
Total Depth: 87.6 ft	Final Flow Rate: 100 ml/min		
Initial Depth to Water: 45.73 ft	Final Draw Down: 2.33 ft		

### **Test Notes:**

Heron Instruments Dipper-T SN WL 006 MP50 SN: 26 ID: 105 Pressure: 45

# Weather Conditions:

Sunny 76 F

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/9/2023 3:31 PM	00:00	6.75 pH	24.42 °C	329.45 µS/cm	1.76 mg/L	3.32 NTU	19.4 mV	46.49 ft	100.00 ml/min
10/9/2023 3:36 PM	05:00	6.50 pH	22.11 °C	337.93 µS/cm	1.12 mg/L	3.51 NTU	58.1 mV	46.98 ft	100.00 ml/min
10/9/2023 3:41 PM	10:00	6.44 pH	21.87 °C	337.04 µS/cm	1.14 mg/L	3.36 NTU	65.9 mV	47.34 ft	100.00 ml/min
10/9/2023 3:46 PM	15:00	6.43 pH	21.73 °C	336.97 µS/cm	0.99 mg/L	3.70 NTU	70.4 mV	47.71 ft	100.00 ml/min
10/9/2023 3:51 PM	20:00	6.42 pH	21.64 °C	339.90 µS/cm	0.83 mg/L	2.55 NTU	81.7 mV	47.73 ft	100.00 ml/min
10/9/2023 3:56 PM	25:00	6.42 pH	21.47 °C	339.04 µS/cm	0.73 mg/L	1.97 NTU	70.1 mV	47.83 ft	100.00 ml/min
10/9/2023 4:01 PM	30:00	6.41 pH	21.50 °C	338.33 µS/cm	0.68 mg/L	1.45 NTU	69.6 mV	47.94 ft	100.00 ml/min
10/9/2023 4:06 PM	35:00	6.41 pH	21.46 °C	337.40 µS/cm	0.64 mg/L	1.46 NTU	68.9 mV	48.01 ft	100.00 ml/min
10/9/2023 4:11 PM	40:00	6.41 pH	21.41 °C	337.44 µS/cm	0.64 mg/L	1.80 NTU	68.1 mV	48.06 ft	100.00 ml/min

# Samples

Sample ID:	Description:
	1620 6 bottles collected
	Metals
ARK-AP1PZ-1	Radium
	Anions
	TDS

Test Date / Time: 10/9/2023 4:20:06 PM Project: Arkwright Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1,	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
AP1PZ-2	Pump	Serial Number: 850762
Latitude: 32.920425025932	Tubing Type: HDPE	
Longitude: -83.6982994526625	Pump Intake From TOC: 56.6 ft	
Well Diameter: 2 in	Estimated Total Volume Pumped:	
Casing Type: PVC	9000 ml	
Screen Length: 10 ft	Flow Cell Volume: 90 ml	
Top of Screen: 52.1 ft	Final Flow Rate: 300 ml/min	
Total Depth: 62.7 ft	Final Draw Down: 0 ft	
Initial Depth to Water: 43.04 ft		

#### **Test Notes:**

Heron dipper-T SN: 11FF2205014ML MP50 SN: 22 ID: 103 Pressure: 45 psi

### Weather Conditions:

Sunny, 77F

# Low-Flow Readings:

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/9/2023 4:20 PM	00:00	6.12 pH	20.84 °C	1,154.8 μS/cm	0.48 mg/L	11.50 NTU	54.4 mV	43.04 ft	300.00 ml/min
10/9/2023 4:25 PM	05:00	6.08 pH	20.78 °C	1,216.5 μS/cm	0.44 mg/L	9.03 NTU	56.6 mV	43.04 ft	300.00 ml/min
10/9/2023 4:30 PM	10:00	6.05 pH	20.65 °C	1,268.1 μS/cm	0.36 mg/L	7.15 NTU	64.5 mV	43.04 ft	300.00 ml/min
10/9/2023 4:35 PM	15:00	6.02 pH	20.76 °C	1,317.6 μS/cm	0.24 mg/L	4.31 NTU	71.7 mV	43.04 ft	300.00 ml/min
10/9/2023 4:40 PM	20:00	6.01 pH	21.00 °C	1,326.9 μS/cm	0.18 mg/L	4.04 NTU	75.5 mV	43.04 ft	300.00 ml/min
10/9/2023 4:45 PM	25:00	5.99 pH	20.95 °C	1,343.6 μS/cm	0.18 mg/L	3.87 NTU	79.8 mV	43.04 ft	300.00 ml/min
10/9/2023 4:50 PM	30:00	5.98 pH	20.92 °C	1,369.4 μS/cm	0.17 mg/L	3.29 NTU	82.1 mV	43.04 ft	300.00 ml/min

### Samples

Sample ID:

Description:

ARK-AP1PZ-2	Sample time: 1700; 6 bottles: Metals, Anions, TDS, Radium
ARK-AP1-FD-01	6 bottles: Metals, Anions, TDS, Radium

Test Date / Time: 10/10/2023 8:49:00 AM Project: Arkwright Operator Name: J. Myer

Location Name: AP1PZ-3	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400	
Latitude: 32.9196479679014	Pump	Serial Number: 850751	
Longitude: -83.6980466544628	Tubing Type: HDPE		
Well Diameter: 2 in	Pump Intake From TOC: 61.4 ft		
Casing Type: PVC	Estimated Total Volume Pumped:		
Screen Length: 10 ft	5250 ml		
Top of Screen: 56.9 ft	Flow Cell Volume: 90 ml		
Total Depth: 67.4 ft	Final Flow Rate: 150 ml/min		
Initial Depth to Water: 43.7 ft	Final Draw Down: 0.3 ft		

1

### **Test Notes:**

Heron Instrument Dipper-T SN: WL-006 MP-50 SN: 26 ID: 103 Pressure: 35 PSI

### Weather Conditions:

Cloudy 53 F

# Low-Flow Readings:

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow			
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3				
10/10/2023	00:00	5.56 pH	18.11 °C	2,156.4	4.47 mg/L	1.36 NTU	198.0 mV	44.00 ft	150.00 ml/min			
8:49 AM	00.00	0.00 pm	10.11 0	µS/cm	4.47 mg/L	1.50 1110	130.0 111	44.00 m	100.00 111/1111			
10/10/2023	05:00	5.60 pH	19.14 °C	2,143.6	0.83 mg/L	0.80 NTU	175.2 mV	44.00 ft	150.00 ml/min			
8:54 AM	05.00	5.00 pm	19.14 C	µS/cm	0.83 mg/L	0.80 1110	175.2 111	44.00 11	130.00 111/11111			
10/10/2023	10:00	5.61 pH	19.11 °C	2,126.4	0.58 mg/L	0.59 NTU	192.3 mV	44.00 ft	150.00 ml/min			
8:59 AM	10.00	5.01 pri	19.11 C	µS/cm	0.56 mg/L	0.59 1110	192.5 111	44.00 11	130.00 111/11111			
10/10/2023	15:00	5.61 pH	19.15 °C	2,138.6	0.51 mg/l	0.74 NTU	164.2 mV	44.00 ft	150.00 ml/min			
9:04 AM	15.00	5.01 pri	19.15 C	µS/cm	0.51 mg/L	0.741010	104.2 111	44.00 II	130.00 mi/min			
10/10/2023	20:00					19.23 °C	2,127.3	0.52 mg/L	0.51 NTU	178.5 mV	44.00 ft	150.00 ml/min
9:09 AM	20.00	5.61 pH	19.25 C	µS/cm	0.52 mg/L	0.51 NTO	176.5 111	44.00 II	150.00 111/11111			
10/10/2023	23 25.00 5.01 11	5.61 pH	19.23 °C	2,133.2	0.38 mg/L	0.94 NTU	152.0 mV	44.00 ft	450.00			
9:14 AM	25:00	5.01 PH	19.25 C	µS/cm	0.36 mg/L	0.94 1110	152.0 111	44.00 II	150.00 ml/min			
10/10/2023	30:00	5.61 pH	19.24 °C	2,143.0	0.30 mg/L	0.69 NTU	147.2 mV	44.00 ft	150.00 ml/min			
9:19 AM	30.00	5.01 PH	19.24 0	µS/cm	0.30 mg/L	0.09 NTU	147.21110	44.00 II	150.00 111/11111			
10/10/2023	023 05.00		19.33 °C	2,130.6	0.27 mg/l	0.34 NTU	142.6 mV	44.00 ft	150.00 ml/min			
9:24 AM	35:00	5.61 pH	19.55	μS/cm	0.27 mg/L	0.34 NTU	142.0 1110	44.00 II	150.00 mi/min			

# Samples

Sample ID:

	0930 6 bottles collected
	Metals
ARK-AP1PZ-3	Radium
	Anions
	TDS

Test Date / Time: 10/10/2023 8:45:09 AM Project: Arkwright Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1,	Rump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
• • •	Pump Type: Dedicated Bladder	•
AP1PZ-4	Pump	Serial Number: 850762
Latitude: 32.9188151770192	Tubing Type: HDPE	
Longitude: -83.6975826323032	Pump Intake From TOC: 61.5 ft	
Well Diameter: 2 in	Estimated Total Volume Pumped:	
Casing Type: PVC	2000 ml	
Screen Length: 10 ft	Flow Cell Volume: 90 ml	
Top of Screen: 56.9 ft	Final Flow Rate: 100 ml/min	
Total Depth: 67.4 ft	Final Draw Down: 0 ft	
Initial Depth to Water: 48.03 ft		

#### **Test Notes:**

Heron dipper-T SN: 11FF2205014ML; MP50 SN: 22; ID: 101; Pressure: 35 psi

# Weather Conditions:

Cloudy, 54F

# Low-Flow Readings:

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/10/2023	00:00	6.30 pH	18.19 °C	2,379.5	0.46 mg/L	6.10 NTU	-52.7 mV	48.03 ft	100.00 ml/min
8:45 AM	00.00	0.30 PH	10.19 C	µS/cm	0.46 mg/L	6.10 NTU	-52.7 1110		
10/10/2023	05:00	6.29 pH	18.37 °C	2,371.3	0.45 mg/L	5.98 NTU	-69.0 mV	48.03 ft	100.00 ml/min
8:50 AM	05.00	0.29 pH	10.37 C	µS/cm	0.45 mg/L	5.90 1010	-03.0 111	40.03 11	100.00 111/11111
10/10/2023	10:00	6.29 pH	18.57 °C	2,362.8	0.45 mg/L	4.55 NTU	-52.0 mV	48.03 ft	100.00 ml/min
8:55 AM	10.00	0.29 pm	10.57 C	µS/cm	0.45 mg/L	4.55 NTU	-52.0 1110	40.05 11	100.00 111/11111
10/10/2023	15:00	6.29 pH	18.46 °C	2,361.8	0.43 mg/L	4.15 NTU	-51.1 mV	48.03 ft	100.00 ml/min
9:00 AM	9:00 AM	0.29 pm	10.40 C	µS/cm	0.43 mg/L	4.13 1110	-51.1111	40.05 11	100.00 111/11111
10/10/2023	20:00	6.28 pH	18.59 °C	2,357.5	0.43 mg/L	3.99 NTU	-66.8 mV	48.03 ft	100.00 ml/min
9:05 AM	20.00	0.20 pH	10.59 C	µS/cm	0.45 mg/L	3.99 NTU	-00.8 111	40.03 II	

# Samples

Sample ID:	Description:			
ARK-AP1PZ-4	Sample time: 0910; 6 bottles: Metals, Anions, TDS, Radium			
ARK-AP1-FB-02	Sample time: 0930; 6 bottles: Metals, Anions, TDS, Radium			

Test Date / Time: 10/10/2023 10:31:42 AM Project: Arkwright Operator Name: J. Myer

Location Name: AP1PZ-5	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400	
Latitude: 32.9179289032926	Pump	Serial Number: 850751	
Longitude: -83.6973509564996	Tubing Type: HDPE		
Well Diameter: 2 in	Pump Intake From TOC: 61.3 ft		
Casing Type: PVC	Estimated Total Volume Pumped:		
Screen Length: 10 ft	4500 ml		
Top of Screen: 56.8 ft	Flow Cell Volume: 90 ml		
Total Depth: 67.2 ft	Final Flow Rate: 100 ml/min		
Initial Depth to Water: 49.55 ft	Final Draw Down: 1.12 ft		

### **Test Notes:**

Heron Instruments Dipper-T SN: WL-006 MP-50 SN: 26 ID: 103 Pressure: 35 psi

# Weather Conditions:

Sunny 64 F

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/10/2023 10:31 AM	00:00	6.03 pH	22.07 °C	2,926.0 μS/cm	2.18 mg/L	20.50 NTU	-11.3 mV	50.30 ft	100.00 ml/min
10/10/2023 10:36 AM	05:00	6.05 pH	20.32 °C	3,023.3 µS/cm	1.37 mg/L	14.90 NTU	-37.6 mV	50.48 ft	100.00 ml/min
10/10/2023 10:41 AM	10:00	6.06 pH	20.30 °C	3,028.5 μS/cm	1.20 mg/L	8.60 NTU	-42.2 mV	50.55 ft	100.00 ml/min
10/10/2023 10:46 AM	15:00	6.06 pH	20.35 °C	3,019.0 µS/cm	1.05 mg/L	6.59 NTU	-74.1 mV	50.60 ft	100.00 ml/min
10/10/2023 10:51 AM	20:00	6.06 pH	20.33 °C	3,022.2 µS/cm	0.85 mg/L	5.51 NTU	-49.9 mV	50.63 ft	100.00 ml/min
10/10/2023 10:56 AM	25:00	6.05 pH	20.38 °C	3,023.4 µS/cm	0.72 mg/L	3.26 NTU	-48.9 mV	50.66 ft	100.00 ml/min
10/10/2023 11:01 AM	30:00	6.06 pH	20.54 °C	3,025.1 μS/cm	0.66 mg/L	2.07 NTU	-50.6 mV	50.67 ft	100.00 ml/min
10/10/2023 11:06 AM	35:00	6.05 pH	20.57 °C	3,015.2 µS/cm	0.63 mg/L	1.71 NTU	-77.6 mV	50.67 ft	100.00 ml/min
10/10/2023 11:11 AM	40:00	6.05 pH	20.66 °C	3,027.6 µS/cm	0.60 mg/L	1.03 NTU	-48.8 mV	50.67 ft	100.00 ml/min
10/10/2023 11:16 AM	45:00	6.05 pH	20.77 °C	3,026.0 μS/cm	0.59 mg/L	0.88 NTU	-46.8 mV	50.67 ft	100.00 ml/min

# Samples

Sample ID:	Description:
	1120 6 Samples taken
	Metals
ARK-AP1PZ-5	Radium
	Anions
	TDS
	1210 6 Samples taken
	Metals
ARK-AP1-EB-02	Radium
	TDS
	Anions

Test Date / Time: 6/13/2023 2:42:52 PM Project: Arkwright Operator Name: B. Pennell

Location Name: Arkwright, AP-1,	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
PZ-6	Pump	Serial Number: 989630
Latitude: 32.9169078058876	Tubing Type: LDPE	
Longitude: -83.696961030364	Tubing Inner Diameter: 0.17 in	
Well Diameter: 2 in	Pump Intake From TOC: 67.6 ft	
Casing Type: PVC	Estimated Total Volume Pumped:	
Screen Length: 10 ft	9750 ml	
Top of Screen: 62.2 ft	Flow Cell Volume: 90 ml	
Total Depth: 72.2 ft	Final Flow Rate: 150 ml/min	
Initial Depth to Water: 57.13 ft	Final Draw Down: 0.43 ft	

Test Notes:

Sample time: 1552

# Weather Conditions:

Light rain, 30 C

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.33	
6/13/2023	00:00	4.68 pH	20.23 °C	3,021.4	2.60 mg/L	4.86 NTU	164.5 mV	57.13 ft	150.00 ml/min
2:42 PM	00.00	4.00 pri	20.23 0	µS/cm	2.00 mg/L	4.00 1110	104.5 111	57.151	130.00 111/1111
6/13/2023 2:47 PM	05:00	5.10 pH	19.95 °C	3,047.8 μS/cm	1.96 mg/L	6.22 NTU	89.1 mV	57.56 ft	150.00 ml/min
6/13/2023	10:00	5.22 pH	19.86 °C	3,044.7	1.47 mg/L	3.59 NTU	76.2 mV	57.56 ft	150.00 ml/min
2:52 PM	10.00	5.22 pm	13.00 0	µS/cm	1.47 mg/E	5.55 NTO	70.2 111	57.50 H	130.00 111/1111
6/13/2023	15:00	5.26 pH	19.86 °C	3,049.9	1.27 mg/L	2.36 NTU	53.4 mV	57.56 ft	150.00 ml/min
2:57 PM	13.00	5.20 pm	10.00 0	µS/cm	1.27 mg/L	2.50 1110	55.4 mV	57.50 h	130.00 111/1111
6/13/2023	20:00	5.28 pH	19.86 °C	3,049.8	1.10 mg/L	2.04 NTU	45.6 mV	57.56 ft	150.00 ml/min
3:02 PM	20.00	0.20 pm	10.00 0	µS/cm		2.01110	10.0 111	01.00 1	
6/13/2023	25:00	5.30 pH	19.86 °C	3,051.9	1.00 mg/L	1.41 NTU	40.7 mV	57.56 ft	150.00 ml/min
3:07 PM				µS/cm			-		
6/13/2023	30:00	30:00 5.31 pH	5.31 pH 19.89 °C	3,048.2	0.87 mg/L	0.97 NTU	37.2 mV	57.56 ft	150.00 ml/min
3:12 PM				µS/cm					
6/13/2023	35:00	5.31 pH	19.91 °C	3,057.0	0.80 mg/L	0.82 NTU	34.7 mV	57.56 ft	150.00 ml/min
3:17 PM				µS/cm					
6/13/2023	40:00	5.32 pH	19.91 °C	3,055.5	0.71 mg/L	0.62 NTU	32.6 mV	57.56 ft	150.00 ml/min
3:22 PM		p		µS/cm	•••••••••••••••••				
6/13/2023	45:00	5.33 pH	19.90 °C	3,042.9	0.62 mg/L	0.68 NTU	31.1 mV	57.56 ft	150.00 ml/min
3:27 PM	10.00	0.00 pm	10.00 0	µS/cm	0.02 mg/2	0.001110	011111	01.00 1	
6/13/2023	50:00	5.33 pH	19.86 °C	3,039.1	0.55 mg/L	0.47 NTU	29.7 mV	57.56 ft	150.00 ml/min
3:32 PM	00.00	0.00 pri	10.00 0	µS/cm	0.00 mg/L		20.7 1110	07.00 1	
6/13/2023	55:00	5.33 pH	19.81 °C	3,036.5	0.49 mg/L	0.39 NTU	28.8 mV	57.56 ft	150.00 ml/min
3:37 PM	00.00	0.00 pri	10.01 0	µS/cm	of the hig/E	0.00 1110	20.0 111	07.00 1	

6/13/2023 3:42 PM	01:00:00	5.34 pH	19.81 °C	3,031.2 μS/cm	0.43 mg/L	0.39 NTU	27.6 mV	57.56 ft	150.00 ml/min
6/13/2023 3:47 PM	01:05:00	5.34 pH	19.83 °C	3,029.3 μS/cm	0.38 mg/L	0.34 NTU	26.6 mV	57.56 ft	150.00 ml/min

# Samples

Sample ID:	Description:
ARK-AP1PZ-6-20230613	6 Polys collected at 1552

Test Date / Time: 10/10/2023 1:11:16 PM Project: Arkwright Operator Name: J. Myer

Location Name: AP1PZ-7	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
Latitude: 32.9174028763597	Pump	Serial Number: 850751
Longitude: -83.6975306645036	Tubing Type: HDPE	
Well Diameter: 2 in	Pump Intake From TOC: 71.8 ft	
Casing Type: PVC	Estimated Total Volume Pumped:	
Screen Length: 10 ft	3000 ml	
Top of Screen: 67.3 ft	Flow Cell Volume: 90 ml	
Total Depth: 77.8 ft	Final Flow Rate: 100 ml/min	
Initial Depth to Water: 51.1 ft	Final Draw Down: 3 ft	

### **Test Notes:**

Heron Instruments Dipper-T SN: WL 006 MP50 SN: 26 ID: 103 Pressure: 40 PSI

### Weather Conditions:

Sunny 76 F

# Low-Flow Readings:

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/10/2023	00:00	6.34 pH	25.56 °C	2,237.8	1.52 mg/L	8.00 NTU	-51.5 mV	52.05 ft	100.00 ml/min
1:11 PM	00.00	0.04 pm	23.30 0	µS/cm	1.02 mg/E	0.00 1110	-01.0 mV	52.05 H	100.00 111/11111
10/10/2023	05:00	6.24 pH	22.56 °C	2,332.4	0.81 mg/L	7.55 NTU	-41.5 mV	52.50 ft	100.00 ml/min
1:16 PM	05.00	0.24 pH	22.50 C	µS/cm	0.61 mg/L	7.55 NTU	-41.51110	52.50 ft	100.00 111/11111
10/10/2023	10:00	6.25 pH	21.96 °C	2,343.3	0.67 mg/L	6.62 NTU	-33.3 mV	52.95 ft	100.00 ml/min
1:21 PM	10.00	0.25 pm	21.90 C	µS/cm	0.07 mg/L	0.02 1110	-55.5 111	52.95 ft	
10/10/2023	15:00	6.28 pH	22.18 °C	2,323.1	0.81 mg/L	5.26 NTU	-24.2 mV	53.35 ft	100.00 ml/min
1:26 PM	15.00	0.26 pm	22.10 C	µS/cm	0.81 mg/L	5.20 NTO	-24.2 1110	55.55 ft	100.00 111/11111
10/10/2023	20:00	6.28 pH	22.08 °C	2,327.5	0.93 mg/L	2.72 NTU	-22.2 mV	53.65 ft	100.00 ml/min
1:31 PM	20.00	0.20 pH	22.00 C	µS/cm	0.93 mg/L	2.72 NTU	-22.2 1110	55.65 ft	100.00 111/11111
10/10/2023	25:00	6.28 pH	22.18 °C	2,312.8	0.98 mg/L	2.21 NTU	-41.6 mV	53.85 ft	100.00 ml/min
1:36 PM	23.00	0.20 pH	22.10 C	µS/cm	0.90 mg/L	2.21 NTU	-41.0 1110	55.65 II	
10/10/2023	30:00	6.27 pH	22.32 °C	2,300.6	0.98 mg/L	1.98 NTU	-23.8 mV	54.10 ft	100.00 ml/min
1:41 PM	30.00	0.27 μπ	22.52 0	µS/cm	0.90 mg/L	1.90 NTU	-23.0 1110	54.10 II	

# Samples

Sample ID:	Description:	
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	1350 6 samples taken
	Metals
ARK-AP1PZ-7	Radium
	TDS
	Anions

Test Date / Time: 10/10/2023 10:40:18 AM Project: Arkwright Operator Name: Dylan Quintal

			1
Location Name: Arkwright, AP-1,	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400	
AP1PZ-8	Pump	Serial Number: 850762	ĺ
Latitude: 32.9180746929753	Tubing Type: HDPE		
Longitude: -83.6980637535453	Pump Intake From TOC: 59 ft		
Well Diameter: 2 in	Estimated Total Volume Pumped:		
Casing Type: PVC	7500 ml		
Screen Length: 10 ft	Flow Cell Volume: 90 ml		
Top of Screen: 55.6 ft	Final Flow Rate: 100 ml/min		
Total Depth: 66.1 ft	Final Draw Down: 2.27 ft		
Initial Depth to Water: 47.87 ft			

### **Test Notes:**

Heron dipper-T SN: 11FF2205014ML; MP50 SN: 22; ID: 99; Pressure: 40 psi

# Weather Conditions:

Partly cloudy, 66F

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/10/2023 10:40 AM	00:00	6.63 pH	20.37 °C	1,569.6 μS/cm	2.14 mg/L	2.02 NTU	-22.3 mV	50.14 ft	100.00 ml/min
10/10/2023 10:45 AM	05:00	6.60 pH	20.88 °C	1,631.7 μS/cm	1.45 mg/L	1.08 NTU	-31.5 mV	50.14 ft	100.00 ml/min
10/10/2023 10:50 AM	10:00	6.60 pH	20.80 °C	1,653.1 μS/cm	1.12 mg/L	0.64 NTU	-37.0 mV	50.14 ft	100.00 ml/min
10/10/2023 10:55 AM	15:00	6.60 pH	20.99 °C	1,659.2 μS/cm	0.99 mg/L	0.54 NTU	-39.0 mV	50.14 ft	100.00 ml/min
10/10/2023 11:00 AM	20:00	6.60 pH	21.53 °C	1,655.6 μS/cm	0.89 mg/L	0.50 NTU	-40.6 mV	50.14 ft	100.00 ml/min
10/10/2023 11:05 AM	25:00	6.60 pH	21.91 °C	1,651.5 μS/cm	0.82 mg/L	0.54 NTU	-41.4 mV	50.14 ft	100.00 ml/min
10/10/2023 11:10 AM	30:00	6.59 pH	21.84 °C	1,652.4 μS/cm	0.76 mg/L	0.48 NTU	-42.3 mV	50.14 ft	100.00 ml/min
10/10/2023 11:15 AM	35:00	6.59 pH	22.27 °C	1,653.1 μS/cm	0.72 mg/L	0.45 NTU	-42.7 mV	50.14 ft	100.00 ml/min
10/10/2023 11:20 AM	40:00	6.59 pH	22.60 °C	1,650.5 μS/cm	0.67 mg/L	0.46 NTU	-42.2 mV	50.14 ft	100.00 ml/min
10/10/2023 11:25 AM	45:00	6.59 pH	22.60 °C	1,652.6 μS/cm	0.63 mg/L	0.67 NTU	-42.1 mV	50.14 ft	100.00 ml/min
10/10/2023 11:30 AM	50:00	6.59 pH	22.68 °C	1,652.7 μS/cm	0.59 mg/L	0.34 NTU	-42.3 mV	50.14 ft	100.00 ml/min
10/10/2023 11:35 AM	55:00	6.59 pH	22.33 °C	1,651.2 μS/cm	0.57 mg/L	0.28 NTU	-42.1 mV	50.14 ft	100.00 ml/min

10/10/2023	01:00:00		22.38 °C	1,648.9	0.52 mg/l	0.27 NTU	-42.6 mV	50.14 ft	100.00 ml/min
11:40 AM	01.00.00	6.60 pH	22.30 °C	µS/cm	0.52 mg/L	0.27 1110	-42.0 1117	50.14 II	100.00 111/1111
10/10/2023	01:05:00	6.60 pH	22.07 °C	1,650.4	0.50 mg/L	0.26 NTU	-55.9 mV	50.14 ft	100.00 ml/min
11:45 AM	01.05.00	0.00 pm	22.07 C	µS/cm	0.50 mg/L	0.20 1110	-55.9 111	50.14 ft	100.00 111/1111
10/10/2023	01:10:00	6.60 pH	22.16 °C	1,651.0	0.49 mg/L	0.25 NTU	-55.8 mV	50.14 ft	100.00 ml/min
11:50 AM	01.10.00	0.00 pm	22.10 0	µS/cm	0.49 mg/L	0.25 1110	-55.6 111	50.14 ft	100.00 110/1101
10/10/2023	01:15:00	7.06 pH	24.69 °C	0.93 µS/cm	8.11 mg/L		13.1 mV	50.14 ft	100.00 ml/min
11:55 AM	01.10.00	7.00 pri	24.05 0	0.00 µ0/cm	0.11 mg/L		10.1111	50.14 1	100.00 110/1101

# Samples

Sample ID:	Description:
ARK-AP1PZ-8	Sample time: 1155; 6 bottles: Metals, Anions, TDS, Radium

Created using VuSitu from In-Situ, Inc.

Final reading at 11:55 AM was taken after flow through cell was detached and while sampling was occurring. Values are not applicable to stabilization criteria. Final stable parameters are recorded at 11:50 AM.

Test Date / Time: 10/10/2023 3:11:32 PM Project: Arkwright Operator Name: J. Myer

Location Name: AP1PZ-9	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
Well Diameter: 2 in	Pump	Serial Number: 850751
Casing Type: PVC	Tubing Type: HDPE	
Screen Length: 10 ft	Pump Intake From TOC: 50.1 ft	
Top of Screen: 46.3 ft	Estimated Total Volume Pumped:	
Total Depth: 57.4 ft	3500 ml	
Initial Depth to Water: 42.15 ft	Flow Cell Volume: 90 ml	
	Final Flow Rate: 100 ml/min	
	Final Draw Down: 4.85 ft	

### **Test Notes:**

Heron Instruments Dipper-T SN: WL 006 MP50 SN: 26 ID: 103 Pressure: 35 PSI

Well purged dry. Well will allow to recharge and sample the following day

# Weather Conditions:

Cloudy 81 F

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/10/2023 3:11 PM	00:00	5.22 pH	28.36 °C	589.11 µS/cm	2.15 mg/L	11.70 NTU	191.7 mV	43.33 ft	100.00 ml/min
10/10/2023 3:16 PM	05:00	4.61 pH	22.70 °C	636.28 µS/cm	1.88 mg/L	13.10 NTU	224.2 mV	43.89 ft	100.00 ml/min
10/10/2023 3:21 PM	10:00	4.39 pH	22.36 °C	646.67 µS/cm	2.16 mg/L	9.85 NTU	248.2 mV	44.45 ft	100.00 ml/min
10/10/2023 3:26 PM	15:00	4.32 pH	22.19 °C	649.23 µS/cm	2.37 mg/L	6.60 NTU	259.8 mV	44.90 ft	100.00 ml/min
10/10/2023 3:31 PM	20:00	4.30 pH	22.00 °C	650.97 µS/cm	2.36 mg/L	5.39 NTU	263.2 mV	45.40 ft	100.00 ml/min
10/10/2023 3:36 PM	25:00	4.32 pH	22.23 °C	646.95 µS/cm	2.27 mg/L	3.87 NTU	262.3 mV	45.90 ft	100.00 ml/min
10/10/2023 3:41 PM	30:00	4.36 pH	22.31 °C	645.89 µS/cm	2.25 mg/L	3.20 NTU	258.1 mV	46.30 ft	100.00 ml/min
10/10/2023 3:46 PM	35:00	4.40 pH	22.08 °C	645.34 µS/cm	2.44 mg/L	2.66 NTU	252.9 mV	47.00 ft	100.00 ml/min

# Samples

Sample ID:	Description:
ARK-AP1PZ-9	Well not sampled due to insufficient water

Test Date / Time: 10/11/2023 8:15:06 AM Project: Arkwright Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1,	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
AP1PZ-9	Pump	Serial Number: 850762
Latitude: 32.9191016872371	Tubing Type: HDPE	
Longitude: -83.6986887082457	Pump Intake From TOC: 50.1 ft	
Well Diameter: 2 in	Estimated Total Volume Pumped:	
Casing Type: PVC	0 ml	
Screen Length: 10 ft	Flow Cell Volume: 90 ml	
Top of Screen: 46.3 ft	Final Flow Rate: 100 ml/min	
Total Depth: 57.4 ft	Final Draw Down: 0 ft	
Initial Depth to Water: 42.26 ft		

#### **Test Notes:**

Heron dipper-T SN: 11FF2205014ML; MP50 SN: 22; ID: 103; Pressure: 35 psi

### Weather Conditions:

Cloudy, 60F

### Low-Flow Readings:

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/11/2023 8:15 AM	00:00	5.17 pH	18.68 °C	692.89 µS/cm	1.93 mg/L	3.97 NTU	170.3 mV	42.26 ft	100.00 ml/min

# Samples

Sample ID:	Description:
ARK-AP1PZ-9	Sample time: 0820; 6 bottles: Metals, Anions, TDS, Radium

Test Date / Time: 10/10/2023 1:30:27 PM Project: Arkwright Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1,	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
AP1PZ-10	Pump	Serial Number: 850762
Latitude: 32.9197326819116	Tubing Type: HDPE	
Longitude: -83.6989545822144	Pump Intake From TOC: 50.5 ft	
Well Diameter: 2 cm	Estimated Total Volume Pumped:	
Casing Type: PVC	4500 ml	
Screen Length: 10 ft	Flow Cell Volume: 90 ml	
Top of Screen: 46 ft	Final Flow Rate: 100 ml/min	
Total Depth: 56.5 ft	Final Draw Down: 2.52 ft	
Initial Depth to Water: 39.98 ft		

#### **Test Notes:**

Heron dipper-T SN: 11FF2205014ML; MP50 SN: 22; ID: 99; Pressure: 30 psi

### Weather Conditions:

Sunny, 77F

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/10/2023 1:30 PM	00:00	6.24 pH	23.54 °C	671.01 µS/cm	1.72 mg/L	2.88 NTU	11.9 mV	42.50 ft	100.00 ml/min
10/10/2023 1:35 PM	05:00	6.38 pH	23.54 °C	739.85 µS/cm	1.46 mg/L	2.00 NTU	-48.0 mV	42.50 ft	100.00 ml/min
10/10/2023 1:40 PM	10:00	6.43 pH	23.59 °C	764.43 µS/cm	1.23 mg/L	1.71 NTU	-48.9 mV	42.50 ft	100.00 ml/min
10/10/2023 1:45 PM	15:00	6.42 pH	23.75 °C	763.75 µS/cm	1.08 mg/L	1.95 NTU	-47.9 mV	42.50 ft	100.00 ml/min
10/10/2023 1:50 PM	20:00	6.40 pH	23.83 °C	752.07 µS/cm	1.02 mg/L	2.37 NTU	-44.3 mV	42.50 ft	100.00 ml/min
10/10/2023 1:55 PM	25:00	6.40 pH	23.68 °C	751.40 µS/cm	0.93 mg/L	1.94 NTU	-42.6 mV	42.50 ft	100.00 ml/min
10/10/2023 2:00 PM	30:00	6.38 pH	23.24 °C	740.03 µS/cm	0.84 mg/L	2.62 NTU	-40.2 mV	42.50 ft	100.00 ml/min
10/10/2023 2:05 PM	35:00	6.35 pH	23.22 °C	719.32 µS/cm	0.79 mg/L	2.55 NTU	-35.7 mV	42.50 ft	100.00 ml/min
10/10/2023 2:10 PM	40:00	6.34 pH	22.62 °C	720.61 µS/cm	0.75 mg/L	3.03 NTU	-32.4 mV	42.50 ft	100.00 ml/min
10/10/2023 2:15 PM	45:00	6.30 pH	22.70 °C	700.48 µS/cm	0.77 mg/L	1.89 NTU	-27.0 mV	42.50 ft	100.00 ml/min

Sample ID:	Description:
ARK-AP1PZ-10	Sample time: 1420; 6 bottles: Metals, Anions, TDS, Radium

Test Date / Time: 10/10/2023 3:50:03 PM Project: Arkwright Operator Name: Dylan Quintal

Location Name: Arkwright, AP-1,	Pump Type: Dedicated Bladder	Instrument Used: Aqua TROLL 400
AP1PZ-11	Pump	Serial Number: 850762
Latitude: 32.9205162123018	Tubing Type: HDPE	
Longitude: -83.6991527304053	Pump Intake From TOC: 67.9 ft	
Well Diameter: 2 in	Estimated Total Volume Pumped:	
Casing Type: PVC	4000 ml	
Screen Length: 10 ft	Flow Cell Volume: 90 ml	
Top of Screen: 62.8 ft	Final Flow Rate: 200 ml/min	
Total Depth: 73.3 ft	Final Draw Down: 0 ft	
Initial Depth to Water: 41.22 ft		

#### **Test Notes:**

Heron dipper-T SN: 11FF2205014ML; MP50 SN: 22; ID: 104; Pressure: 40 psi

### Weather Conditions:

Cloudy, 81F

### Low-Flow Readings:

Date Time	Elapsed Time	рН	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.3	
10/10/2023 3:50 PM	00:00	6.67 pH	21.09 °C	297.14 µS/cm	3.55 mg/L	2.38 NTU	77.3 mV	41.22 ft	200.00 ml/min
10/10/2023 3:55 PM	05:00	6.67 pH	20.92 °C	298.01 µS/cm	3.00 mg/L	2.33 NTU	69.7 mV	41.22 ft	200.00 ml/min
10/10/2023 4:00 PM	10:00	6.67 pH	20.82 °C	297.33 µS/cm	2.77 mg/L	2.15 NTU	68.7 mV	41.22 ft	200.00 ml/min
10/10/2023 4:05 PM	15:00	6.67 pH	20.77 °C	295.74 µS/cm	2.67 mg/L	1.69 NTU	67.6 mV	41.22 ft	200.00 ml/min
10/10/2023 4:10 PM	20:00	6.67 pH	20.74 °C	294.40 µS/cm	2.64 mg/L	1.41 NTU	80.5 mV	41.22 ft	200.00 ml/min

# Samples

Sample ID:	Description:
ARK-AP1PZ-11	Sample time: 1615; 6 bottles: Metals, Anions, TDS, Radium
ARK-AP1-FD-02	Sample time: NA; 6 bottles: Metals, Anions, TDS, Radium

2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill

# **B.2** Calibration Data

Calibrated By: John Myer

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AquaTroll	850751
Turbidity Meter	Hach 2100Q	23060D00290

Calibration Standard Information						
Parameter	Standard	Lot #	Date of Expiration	Brand		
Specific Conductance (µS/cm)	4,490	24000044	May-24	AIR		
pH (SU)	4.00	24000044	May-24	AIR		
pH (SU)	7.00	22290139	Apr-24	AIR		
pH (SU)	10.00	22110130	Apr-24	AIR		
D.O. (%)	N/A	N/A	N/A	N/A		
ORP (mV)	228.0	24002258	Jun-24	AIR		

Calibration							
Time Start							
	Calibration Solution		Calibration Solution				
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference		
Specific Conductance (µS/cm)	4,490	4484	20.35	± 10% of standard	EPA 2023		
pH (SU)	4.00	4.02	20.59	± 0.1	GWMP		
pH (SU)	7.00	7.05	20.51	± 0.1	GWMP		
pH (SU)	10.00	10.05	20.75	± 0.1	GWMP		
D.O. (%)	N/A	100.09	20.11	± 10%	NA		
ORP (mV)	228.0	235	20.49	± 10	EPA 2023		

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.7		
Turbidity (NTU)	100	98.9	± 10% of standard	EPA 2023
	800	798		
	10	10.3		

Calibration Check							
Time Start 15:00 Time Finish 15:15							
Calibration Solution							
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference		
Specific Conductance (µS/cm)	4,490	4342.7	25.6	± 10% of standard	EPA 2023		
pH (SU)	4.00	4.07	25.6	± 0.1	GWMP		
pH (SU)	7.00	7.08	24.1	± 0.1	GWMP		
pH (SU)	10.00	10.04	24.4	± 0.1	GWMP		

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.3		
Turbidity (NTU)	100	103	± 10% of standard	EPA 2023
	800	795		
	10	10.2		

Calibrated By: Dylan Quintal\_\_\_\_\_

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	InSitu Aqua TROLL 400	850762
Turbidity Meter	Hach 2100Q	22090D000086

Calibration Standard Information							
Parameter Standard Lot # Date of Expiration Brand							
Specific Conductance (µS/cm)	4,490	24000044	May-24	AIR			
pH (SU)	4.00	24000044	May-24	AIR			
pH (SU)	7.00	22290139	Apr-24	AIR			
pH (SU)	10.00	22110130	Apr-24	AIR			
D.O. (%)	N/A	NA	NA	NA			
ORP (mV)	228.0	24002258	Jun-24	AIR			

Calibration							
Time Start 10:30 Time Finish 11:05							
	Calibration Solution		Calibration Solution				
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference		
Specific Conductance (µS/cm)	4,490	4484.9	20.49	± 10% of standard	EPA 2023		
pH (SU)	4.00	4.03	19.35	± 0.1	GWMP		
pH (SU)	7.00	7.05	19.67	± 0.1	GWMP		
pH (SU)	10.00	10.05	20.33	± 0.1	GWMP		
D.O. (%)	N/A	100.13	21.76	± 10%	NA		
ORP (mV)	228.0	228	20.4	± 10	EPA 2023		

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.4		
Turbidity (NTU)	100	101	± 10% of standard	EPA 2023
	800	802		LI A 2023
	10	10.1		

Calibration Check							
Time Start 15:15 Time Finish 15:35							
Calibration Solution							
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference		
Specific Conductance (µS/cm)	4,490	4516.7	22.64	± 10% of standard	EPA 2023		
pH (SU)	4.00	4.07	22.72	± 0.1	GWMP		
pH (SU)	7.00	7.04	21.89	± 0.1	GWMP		
pH (SU)	10.00	9.95	22.06	± 0.1	GWMP		

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.6		
Turbidity (NTU)	100	99.3	± 10% of standard	EPA 2023
	800	802	I 1070 OF Standard	
	10	9.92		

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	AquaTroll	850751
Turbidity Meter	Hach 2100Q	23060D00290

Calibration Standard Information							
Parameter Standard Lot # Date of Expiration Brand							
Specific Conductance (µS/cm)	4,490	24000044	May-24	AIR			
pH (SU)	4.00	24000044	May-24	AIR			
pH (SU)	7.00	22290139	Apr-24	AIR			
pH (SU)	10.00	22110130	Apr-24	AIR			
D.O. (%)	N/A	N/A	N/A	N/A			
ORP (mV)	228.0	24002258	Jun-24	AIR			

Calibration								
Time Start 5:30 Time Finish 6:00								
-	o		Calibration Solution		5.6			
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference			
Specific Conductance (µS/cm)	4,490	4403	19.89	± 10% of standard	EPA 2023			
pH (SU)	4.00	4.03	20.22	± 0.1	GWMP			
pH (SU)	7.00	7.06	20.25	± 0.1	GWMP			
pH (SU)	10.00	10.06	20.28	± 0.1	GWMP			
D.O. (%)	N/A	100.05	20.08	± 10%	NA			
ORP (mV)	228.0	235.5	20.08	± 10	EPA 2023			

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.2		
Turbidity (NTU)	100	104	± 10% of standard	EPA 2023
	800	816	10% of standard	
	10	10.1		

Calibration Check								
Time Start 12:35 Time Finish 12:50								
Parameter	Standard	<b>Calibration Value</b>	Temperature (°C)	Acceptance Criteria	Reference			
Specific Conductance (µS/cm)	4,490	4301	25.41	± 10% of standard	EPA 2023			
pH (SU)	4.00	4.06	25.41	± 0.1	GWMP			
pH (SU)	7.00	7.08	23.89	± 0.1	GWMP			
pH (SU)	10.00	10.05	22.59	± 0.1	GWMP			

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.2		
Turbidity (NTU)	100	102	± 10% of standard	EPA 2023
	800	803		
	10	10.1		

Calibrated By: Dylan Quintal\_\_\_\_\_

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	InSitu AquaTroll 400	850762
Turbidity Meter	Hach 2100Q	22090D000086

Calibration Standard Information								
Parameter Standard Lot # Date of Expiration Brand								
Specific Conductance (µS/cm)	4,490	24000044	May-24	AIR				
pH (SU)	4.00	24000044	May-24	AIR				
pH (SU)	7.00	22290139	Apr-24	AIR				
pH (SU)	10.00	22110130	Apr-24	AIR				
D.O. (%)	N/A	NA	NA	NA				
ORP (mV)	228.0	24002258	Jun-24	AIR				

Calibration								
Time Start 7:25 Time Finish 7:50								
	•		Calibration Solution					
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference			
Specific Conductance (µS/cm)	4,490	4470.4	11.85	± 10% of standard	EPA 2023			
pH (SU)	4.00	4.03	12.00	± 0.1	GWMP			
pH (SU)	7.00	7.09	12.24	± 0.1	GWMP			
pH (SU)	10.00	10.14	12.38	± 0.1	GWMP			
D.O. (%)	N/A	100.1	14.47	± 10%	NA			
ORP (mV)	228.0	246.7	11.82	± 10	EPA 2023			

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.3		
Turbidity (NTU)	100	101	± 10% of standard	EPA 2023
	800	771	10% of standard	
	10	9.71		

Calibration Check								
Time Start 14:40 Time Finish 14:50								
	Calibration Solution							
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference			
Specific Conductance (µS/cm)	4,490	4285.4	25.72	± 10% of standard	EPA 2023			
pH (SU)	4.00	4.09	25.72	± 0.1	GWMP			
pH (SU)	7.00	7.09	24.75	± 0.1	GWMP			
pH (SU)	10.00	10.02	23.73	± 0.1	GWMP			

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.7	± 10% of standard	EPA 2023
	100	103		
	800	797		
	10	10.2		

Calibrated By: Dylan Quintal\_\_\_\_\_

Instrument	Manufactuer/ Model	Serial Number
Water Quality Meter	InSitu AquaTroll 400	850762
Turbidity Meter	Hach 2100Q	22090D000086

Calibration Standard Information					
Parameter	Standard	Lot #	Date of Expiration	Brand	
Specific Conductance (µS/cm)	4,490	24000044	May-24	AIR	
pH (SU)	4.00	24000044	May-24	AIR	
pH (SU)	7.00	22290139	Apr-24	AIR	
pH (SU)	10.00	22110130	Apr-24	AIR	
D.O. (%)	N/A	NA	NA	NA	
ORP (mV)	228.0	24002258	Jun-24	AIR	

Calibration					
Time Start	7:00	Time Finish	7:30		
			Calibration Solution		
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4477.8	18.09	± 10% of standard	EPA 2023
pH (SU)	4.00	4.04	18.03	± 0.1	GWMP
pH (SU)	7.00	7.07	18.05	± 0.1	GWMP
pH (SU)	10.00	10.05	18.21	± 0.1	GWMP
D.O. (%)	N/A	100.07	17.65	± 10%	NA
ORP (mV)	228.0	227.9	17.93	± 10	EPA 2023

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	20.4		
Turbidity (NTU)	100	97.5	± 10% of standard	EPA 2023
	800	803		
	10	9.76		

Calibration Check					
Time Start 8:50 Time Finish 9:00					
Calibration Solution					
Parameter	Standard	Calibration Value	Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4412.9	17.61	± 10% of standard	EPA 2023
pH (SU)	4.00	4.04	17.63	± 0.1	GWMP
pH (SU)	7.00	7.04	17.97	± 0.1	GWMP
pH (SU)	10.00	10.03	18.00	± 0.1	GWMP

	Standard	Calibration Value	Acceptance Criteria	Reference
	20	19.2		
Turbidity (NTU)	100	88.6	± 10% of standard	EPA 2023
	800	807	± 10% of standard	
	10	9.81		

### EQUIPMENT CALIBRATION FORM

Project Name:	Arkwright Groundwater Sampling				
Plant Name:	Plant Arkwright	Date:	6/13/2023		
Plant Address:	5001 Arkwright Road, Macon, GA 31210	-			
Project Number:	175569434	Page	1	of	1
Goal/Task:	Groundwater Sampling	_			

Morning (AM) Calibration			Calibrated By:	B. Pennell	
Weather:			Partly cloudy, 27 °C		
Time (24hr) Start:	12:00	Acceptance Criteria	Time (24hr) Finish:	12:31	
Temperature (°C	):	Acceptance Chiena	Barc	metric Pressure (mbar):	
NIST Thermometer:	27.6	+/- 4°C	Local Weather Station:	1012.9	
Aqua TROLL 400:	27.15	+/- 4 C	Aqua TROLL 400:	1002.2	
Turbidity (NTUs):	20 NTU Standard	100 NTU Standard	800 NTU Standard	10 NTU Verification	Acceptance Criteria
	20.0	101	793	10.1	+/- 3 %
	Calibration Value	Post Calibration	Acceptance Criteria	Cal Sol Temp (°C)	Notes:
Specific Conductance 4,490 (µS/cm)	4490	4494.7	+/- 1 %	27.13	NA
pH 7 (SU)	7.00	7.01	+/1 (SU)	26.50	NA
pH 4 (SU)	4.00	4.00	+/1 (SU)	26.82	NA
pH 10 (SU)	10.00	9.95	+/1 (SU)	26.57	NA
D.O. (%)			95-105 %	29.05	
	N/A	103.49			NA
ORP (mV)	226.8	226.5	+/- 10 mV	26.46	NA
Afternoon (PM) Calibration Verification			Verification By:	Bryan Pennel	
Weather:			Cloudy, 26 °C		
Time (24hr) Start:	21:40	Acceptance Criteria	Time (24hr) Finish:	22:05	
Temperature (°C				metric Pressure (mbar):	
NIST Thermometer:	27.1	+/- 4°C	Local Weather Station:	1010.7	
Aqua TROLL 400:	26.63		Aqua TROLL 400:	1001.5	
Turbidity (NTUs):	20 NTU Standard	100 NTU Standard	800 NTU Standard	10 NTU Verification	Acceptance Criteria
	19.5	100	786	9.82	+/- 3 %
	Calibration Value	Verification	Acceptance Criteria	Cal Sol Temp (°C)	Notes:
Specific Conductance 4490 (µS/cm)	4490	4488.6	+/- 1 %	26.63	NA
pH 7 (SU)	7.00	6.99	+/1 (SU)	26.12	NA
pH 4 (SU)	4.00	4.01	+/1 (SU)	26.68	NA
pH 10 (SU)	10.00	10.03	+/1 (SU)	26.03	NA
D.O. (%)	N/A		95-105 %	28.31	
ORP (mV)	225.9	100.96 225.6	+/- 10 mV	25.86	NA NA
				23.80	NA
Standard (@ 25°C)	Certified Value	Calibration Standards Info Brand	Lot Number	Expiration	Date
AM pH 4 (SU)	4.00	AIR	22250153	11/1/20	
AM pH 7 (SU)	7.00	AIR	2216893	11/1/20	
AM pH 10 (SU)	10.00	AIR	21320202	12/1/20	
PM pH 4 (SU)	4.00	AIR	21320202	11/1/20	
PM pH 7 (SU)	7.00	AIR	22250155	11/1/20	
РМ рН 10 (SU)	10.00	AIR	21320202	12/1/20	
Specific Conductance 4,490 (µS/cm) ORP (mV)	4490	AIR	22250153	11/1/20	
	228.0	AIR	21390144	<u> </u>	
Turbidity - 20 NTU Turbidity - 100 NTU	20.0	Hach	A2231		
Turbidity - 100 NTU	100	Hach	A2239	12/1/20	
Turbidity - 800 NTO	800 10.0	Hach Hach	A2231 A2264	<u> </u>	
	10.0	Instruments	, ILLO I		
	Manufacturer	Model	Serial Number	Calibrated V Acceptance C	
Water Quality Meter	InSitu	AguaTroll 400	01-7125		
Turbidity Meter	Hach	2100Q	22080D000173		
NIST Thermometer	Thomas Instruments	NIST Thermometer	221620123	Expiration Date: 6/28/2024	
Explanations:			NA		
Prepared By:Br	yan Pennell Date:	6/13/2023	Signature: <b>13</b>	- China - Chin	
Review By: Je	nnifer Kolbe Date:	2/26/2024	Signature: Junius	ut. Kelbe	

### **B.3 Groundwater & Surface Water Laboratory Analytical Reports**



October 23, 2023

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

Re: Arkwright CCR Groundwater Compliance AP1 Work Order: 640869

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 11, 2023. 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>	Client ID	<u>Matrix</u>	<b>Date Collected</b>	Date Recieved
640869001	ARK-AP1GWA-1	Ground Water	09/10/23 13:45	11/10/23 15:28
640869002	ARK-AP1-FB-01	Ground Water	09/10/23 14:05	11/10/23 15:28
640869003	ARK-AP1GWA-2	Ground Water	09/10/23 14:30	11/10/23 15:28
640869004	ARK-AP1-EB-01	Ground Water	09/10/23 15:00	11/10/23 15:28
640869005	ARK-AP1PZ-1	Ground Water	09/10/23 16:20	11/10/23 15:28
640869006	ARK-AP1PZ-2	Ground Water	09/10/23 17:00	11/10/23 15:28
640869007	ARK-AP1-FD-01	Ground Water	09/10/23 00:00	11/10/23 15:28
640869008	ARK-AP1PZ-4	Ground Water	10/10/23 09:10	11/10/23 15:28
640869009	ARK-AP1-FB-02	Ground Water	10/10/23 09:30	11/10/23 15:28
640869010	ARK-AP1PZ-3	Ground Water	10/10/23 09:30	11/10/23 15:28
640869011	ARK-AP1PZ-8	Ground Water	10/10/23 11:55	11/10/23 15:28
640869012	ARK-AP1PZ-5	Ground Water	10/10/23 11:20	11/10/23 15:28
640869013	ARK-AP1-EB-02	Ground Water	10/10/23 12:10	11/10/23 15:28
640869014	ARK-AP1PZ-7	Ground Water	10/10/23 13:50	11/10/23 15:28
640869015	ARK-AP1PZ-10	Ground Water	10/10/23 14:20	11/10/23 15:28
640869016	ARK-AP1PZ-11	Ground Water	10/10/23 16:15	11/10/23 15:28



640869017	ARK-AP1-FD-02	Ground Water	10/10/23 00:00	11/10/23 15:28
640869018	ARK-AP1PZ-9	Ground Water	11/10/23 08:20	11/10/23 15:28

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**

<b>Method</b>	<u>Run Date ID</u>
SW846 3005A	12-OCT-2023
SW846 7470A Prep	12-OCT-2023

#### **Analysis Methods and Analysis Dates**

<b>Method</b>	<u>Run Date ID</u>
EPA 300.0	13-OCT-2023
EPA 300.0	14-OCT-2023
SM 2540C	12-OCT-2023
SM 2540C	13-OCT-2023
SW846 3005A/6020B	14-OCT-2023
SW846 3005A/6020B	15-OCT-2023
SW846 3005A/6020B	16-OCT-2023
SW846 7470A	13-OCT-2023

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. 4504.

Sincerely,

mande len Amanda Turner for

Amanda Turner for Erin Trent 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: 640869 GEL Work Order: 640869

### 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, Erin Trent.

Reviewed by

Ananda ten

Report Date: October 23, 2023

									Кср	on Date.	000	JUCI 23,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blve										
	Contact:	Joju	anta, Georgia 3030 1 Abraham										
	Project:	Ark	wright CCR Groun	idwater Compli	anceAP1								
	Client Sample I	D: AR	K-AP1GWA-1			Pro	oject:		GPCC	200100			
	Sample ID:		869001				ient ID	:	GPCC	2001			
	Matrix:	WC						-	0100				
	Collect Date:		, OCT-23 13:45										
	Receive Date:		OCT-23										
	Collector:	Clie	ent										
Parameter	O1	ualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
												Butth	
Ion Chroma		A a D	in d''										
	Anions Liquid "	As Recei		0.225	1.00	/T		~	1 37 4 0	10/12/22	0200	2507000	1
Chloride Sulfate			1.77 58.3	0.335 0.665	1.00 2.00	mg/L		5 5	LXA2	10/13/23	0209	2507800	1
Fluoride			0.426	0.0330	0.100	mg/L mg/L		1	1 X 4 2	10/13/23	2017	2507800	2
	nalysis-CVAA		0.420	0.0550	0.100	iiig/L		1	LAAL	10/13/23	2017	2307000	2
-	-	<b>.</b>	A D ' 1"										
	Vapor Mercury,			0.0000 (70	0.000	-	1 00			10/10/00	1000		
Mercury Metals Ana	alysis-ICP-MS	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1200	2507487	3
SW846 300	05A/6020B "As I	Received	"										
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1441	2507328	4
Barium			0.0609	0.000670	0.00400	mg/L	1.00	1					
Beryllium			0.00187	0.000200	0.000500	mg/L	1.00	1					
Cadmium		J	0.000410	0.000300	0.00100	mg/L	1.00						
Calcium			19.3	0.0800	0.200	mg/L	1.00						
Chromium		J	0.00462	0.00300	0.0100	mg/L	1.00						
Cobalt			0.00672	0.000300	0.00100	mg/L	1.00						
Lead Lithium		U J	ND 0.00944	0.000500 0.00300	0.00200 0.0100	mg/L	1.00 1.00						
Molybdenum		J U	0.00944 ND	0.000200	0.00100	mg/L mg/L	1.00						
Selenium		J	0.00299	0.00150	0.00500	mg/L mg/L	1.00	1					
Thallium		Ů	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic		J	0.00219	0.00200	0.00500	mg/L	1.00		PRB	10/15/23	1550	2507328	5
Boron			0.108	0.00520	0.0150	mg/L			PRB	10/16/23			6
Solids Ana	lysis												
	Dissolved Solids	"As Rec	eived"										
Total Dissolve			139	2.38	10.0	mg/L			CH6	10/12/23	1323	2507350	7
	ing Prep Method	s were n		2.50	1010								
Method		escription			Analyst	Date	,	Time	, Pr	ep Batch			
SW846 74704			Mercury Prep Liquid		EK1	10/12/23		1120		07486			
SW846 30054	-	P-MS 3005	• • •		SD	10/12/23		1525		07480			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1GWA-1	Project:	GPCC00100
Sample ID:	640869001	Client ID:	GPCC001

Parameter	Qualifier I	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method	
The following Analyt	The following Analytical Methods were performed:									
Method	Description					Analys	st Comments			
1	EPA 300.0									
2	EPA 300.0									
3	SW846 7470A									
4	SW846 3005A/60	020B								
5	SW846 3005A/60	020B								
6	SW846 3005A/60	020B								
7	SM 2540C									

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

									nep	on Duie.	000	0001 20,	2020
	Company : Address :		orgia Power Compa Ralph McGill Blvo										
		Atla	anta, Georgia 3030	8									
	Contact:		ı Abraham										
	Project:	Ark	wright CCR Groun	dwater Compli	anceAP1								
	Client Sample II	D: AR	K-AP1-FB-01			Pro	oject:		GPCC	200100			
	Sample ID:		869002				ient ID		GPCC				
	Matrix:	WQ				CI.		•	0100				
	Collect Date:		OCT-23 14:05										
	Receive Date:		OCT-23										
	Collector:	Clie	ent										
Parameter	Ou	alifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chroma		-											
	Anions Liquid "A		vod"										
Chloride	Amons Liquid F	AS INCLES	0.213	0.0670	0.200	mg/L		1	1 X 4 2	10/13/23	0342	2507800	1
Fluoride		U	ND	0.0330	0.200	mg/L		1	LAA2	10/13/23	0342	2507800	1
Sulfate		Ŭ	ND	0.133	0.400	mg/L		1					
	nalysis-CVAA					0							
-	Vapor Mercury, L	iquid "	As Received"										
Mercury	vapor mercury, i	U U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1201	2507487	2
•	alysis-ICP-MS	U	T(D)	0.0000070	0.000200	ing/L	1.00	1	51 2	10/15/25	1201	2507 107	-
	05A/6020B "As R	eceived	"										
Antimony	05A/0020D AS K	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1506	2507328	3
Barium		U	ND	0.000670	0.00400	mg/L mg/L	1.00		TRD	10/14/23	1500	2507520	5
Beryllium		Ŭ	ND	0.000200	0.000500	mg/L	1.00						
Cadmium		Ū	ND	0.000300	0.00100	mg/L	1.00						
Calcium		U	ND	0.0800	0.200	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						
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		PRB			2507328	
Arsenic	1	J	0.00231	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1604	2507328	5
Solids Ana	•												
	Dissolved Solids												
Total Dissolve	ed Solids	U	ND	2.38	10.0	mg/L			CH6	10/12/23	1323	2507350	6
The follow	ing Prep Methods	were pe	erformed:										
Method	De	scription	1		Analyst	Date	,	Time	e Pr	ep Batch			
SW846 3005A		P-MS 3005			SD	10/12/23		1525		07327			
SW846 74704	A Prep EPA	A 7470A N	Mercury Prep Liquid		EK1	10/12/23		1120	250	07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1-FB-01	Project:	GPCC00100
Sample ID:	640869002	Client ID:	GPCC001

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

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

									Rep	on Date.	000	0001 25,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blvo										
		Δ t1	anta, Georgia 3030	8									
	Contact:		a Abraham	0									
	Project:		wright CCR Groun	dwater Compli	ance AP1								
			K-AP1GWA-2	dwater compi		Dev	aiaat.		CDCC	00100			
	Client Sample ID						oject:			200100			
	Sample ID:		869003			Cli	ient ID	:	GPCC	2001			
	Matrix:	WC											
	Collect Date:	09-	OCT-23 14:30										
	Receive Date:	11-	OCT-23										
	Collector:	Clie	ent										
		1. 0			DI	<b>TT</b> •.	DE						
Parameter		lifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chrom	atography												
EPA 300.0	Anions Liquid "As	s Recei	ived"										
Chloride			1.81	0.0670	0.200	mg/L		1	LXA2	10/13/23	0413	2507800	1
Fluoride			0.225	0.0330	0.100	mg/L		1					
Sulfate	1		2.17	0.133	0.400	mg/L		1					
•	nalysis-CVAA												
7470 Cold	Vapor Mercury, Li	quid ".	As Received"										
Mercury		U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1203	2507487	2
Metals Ana	alysis-ICP-MS												
SW846 30	05A/6020B "As Re	ceived	["										
Boron			0.0734	0.00520	0.0150	mg/L	1.00	1	PRB	10/16/23	1043	2507328	3
Arsenic		J	0.00255	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1606	2507328	4
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1510	2507328	5
Barium			0.0580	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					
Calcium			6.91	0.0800	0.200	mg/L	1.00	1					
Chromium		J	0.00340	0.00300	0.0100	mg/L	1.00	1					
Cobalt Lead		U	0.0112 ND	0.000300 0.000500	0.00100 0.00200	mg/L mg/L	1.00 1.00	1 1					
Lithium		U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		U	ND	0.000200	0.00100	mg/L mg/L	1.00	1					
Selenium		U	ND	0.00150	0.00500	mg/L mg/L	1.00	1					
Thallium		Ū	ND	0.000600	0.00200	mg/L	1.00						
Solids Ana	lvsis					U							
	Dissolved Solids "A	As Rec	reived"										
Total Dissolv		15 100	52.0	2.38	10.0	mg/L			CH6	10/12/23	1323	2507350	6
				2.30	10.0	mg/L			0110	10/12/23	1525	2307330	0
	ving Prep Methods	-			A 1 :	Deta		<b>T</b> .					
Method		criptio			Analyst	Date		Tim		ep Batch			
SW846 7470 SW846 3005			Mercury Prep Liquid 5A PREP		EK1 SD	10/12/23 10/12/23		1120 1525		07486 07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1GWA-2	Project:	GPCC00100
Sample ID:	640869003	Client ID:	GPCC001

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

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

									Rep	on Date.	001	0001 25,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blv										
	Contact:		anta, Georgia 3030 1 Abraham	8									
	Project:		wright CCR Groun	dwater Compli	anceAP1								
	Client Sample ID	: AR	K-AP1-EB-01			Pro	oject:		GPCC	200100			
	Sample ID:		869004				ient ID		GPCC				
	Matrix:	WQ				CI		•	orec	2001			
	Collect Date:		OCT-23 15:00										
	Receive Date:		OCT-23										
	Collector:	Clie	ent										
Parameter		lifier	Result	DL	RL	Units	PF	DF	Analy	vst Date	Time	e Batch	Method
Ion Chroma			Result		10				1		1 1111	e Buten	
		. D											
Chloride	Anions Liquid "A	s Recei	0.364	0.0670	0.200	ma/I		1	1 2 4 2	10/13/23	0516	2507800	1
Fluoride		U	0.364 ND	0.0330	0.200	mg/L mg/L		1 1	LAAZ	10/15/25	0340	2307800	1
Sulfate		U	ND	0.133	0.400	mg/L mg/L		1					
	nalysis-CVAA	U	n.b	0.155	0.100	ing/L		1					
-	Vapor Mercury, Li	anid "	As Pacaivad"										
Mercury	vapor Mercury, L	U U	ND	0.0000670	0.000200	ma/I	1.00	1	JP2	10/13/23	1204	2507487	2
•	alysis-ICP-MS	U	ND	0.0000870	0.000200	mg/L	1.00	1	JP2	10/15/25	1204	2307487	2
	•												
	05A/6020B "As Re			0.00200	0.00500	/1	1.00	1	DDD	10/15/02	1 ( 0 0	2507220	2
Arsenic		J	0.00243 ND	0.00200 0.00520	0.00500 0.0150	mg/L mg/L	1.00 1.00		PRB PRB	10/15/23 10/16/23		2507328 2507328	
Boron Antimony		U U	ND	0.00320	0.00300	mg/L	1.00		PRB	10/10/23		2507328	
Barium		U	ND	0.000670	0.00400	mg/L mg/L	1.00		IKD	10/14/23	1515	2507520	5
Beryllium		U	ND	0.000200	0.000500	mg/L	1.00						
Cadmium		Ŭ	ND	0.000300	0.00100	mg/L	1.00						
Calcium		U	ND	0.0800	0.200	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						
Thallium	1 .	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Ana													
	Dissolved Solids ".												
Total Dissolve		U	ND	2.38	10.0	mg/L			CH6	10/12/23	1423	2507357	6
The follow	ing Prep Methods	were p	erformed:										
Method	Des	criptio	n		Analyst	Date	,	Time	e Pr	ep Batch			
SW846 3005A		-	5A PREP		SD	10/12/23		1525	25	07327			
SW846 7470A	A Prep EPA	7470A I	Mercury Prep Liquid		EK1	10/12/23		1120	25	07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1-EB-01	Project:	GPCC00100
Sample ID:	640869004	Client ID:	GPCC001

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

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

									кср	on Date.	000	JUCI 25,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blv										
			anta, Georgia 3030	08									
	Contact:		Abraham		4.D1								
	Project:		wright CCR Grou	ndwater Compli	anceAPI								
	Client Sample ID		K-AP1PZ-1				oject:			200100			
	Sample ID:	640	869005			Cli	ient ID	:	GPCC	2001			
	Matrix:	WC	Ĵ										
	Collect Date:	09-	OCT-23 16:20										
	Receive Date:	11-	OCT-23										
	Collector:	Clie											
Parameter		lifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chroma	atography												
EPA 300.0	Anions Liquid "A	s Recei	ived"										
Fluoride			0.279	0.0330	0.100	mg/L		1		10/13/23		2507800	1
Chloride			3.13	0.670	2.00	mg/L		10	LXA2	10/13/23	0718	2507800	2
Sulfate			105	1.33	4.00	mg/L		10					
-	nalysis-CVAA												
7470 Cold	Vapor Mercury, Li	iquid ".	As Received"										
Mercury		U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1206	2507487	3
Metals Ana	alysis-ICP-MS												
SW846 300	05A/6020B "As Re	eceived											
Arsenic		J	0.00222	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1610	2507328	4
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1517	2507328	5
Barium			0.0422	0.000670	0.00400	mg/L	1.00	1					
Beryllium		U	ND	0.000200	0.000500	mg/L	1.00						
Cadmium		U	ND	0.000300	0.00100	mg/L	1.00						
Calcium			33.2	0.0800	0.200	mg/L	1.00						
Chromium		U	ND	0.00300	0.0100	mg/L	1.00						
Cobalt Lead		J	0.000610	0.000300 0.000500	0.00100	mg/L	1.00 1.00						
Lithium		U J	ND 0.00408	0.000300	0.00200 0.0100	mg/L mg/L	1.00						
Molybdenum		J	0.000437	0.000200	0.00100	mg/L mg/L	1.00						
Selenium		J U	ND	0.00150	0.00500	mg/L mg/L	1.00	1					
Thallium		Ŭ	ND	0.000600	0.00200	mg/L mg/L	1.00						
Boron			0.355	0.0260	0.0750	mg/L			PRB	10/15/23	2114	2507328	6
Solids Ana	lysis					U							
	Dissolved Solids ".	As Rec	eived"										
Total Dissolve			211	2.38	10.0	mg/L			CH6	10/12/23	1423	2507357	7
	ing Prep Methods	wara n		2.50	10.0	ing/L			eno	10/12/23	1120	2001001	,
Method	• •	-			Amalaist	Dete	, ,	т:	. D	on Rotah			
		criptio			Analyst	Date		Tim		ep Batch			
SW846 7470A SW846 3005A			Mercury Prep Liquid 5A PREP		EK1 SD	10/12/23 10/12/23		1120 1525		07486 07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Adama Caracia 20209		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-1	Project:	GPCC00100
Sample ID:	640869005	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analyti	cal Methods v	were performed:							
Method	Description	l				Analys	st Comments		
1	EPA 300.0								
2	EPA 300.0								
3	SW846 7470A	A							
4	SW846 3005A	A/6020B							
5	SW846 3005A	A/6020B							
6	SW846 3005A	A/6020B							
7	SM 2540C								

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

# Certificate of Analysis

									nep	on Date.	000	0001 23,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blv										
		Atla	anta, Georgia 3030	)8									
	Contact:		ı Abraham										
	Project:		wright CCR Groun	ndwater Compli	anceAP1								
	Client Sample		K-AP1PZ-2	Ī		Pro	oject:		GPCC	200100			
	Sample ID:		869006				ient ID		GPCC				
	Matrix:	WC				CI		•	oree	.001			
	Collect Date:		OCT-23 17:00										
	Receive Date:		OCT-23 17.00										
	Collector:	Clie	ent										
Parameter	(	Jualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Ion Chrom												Duten	
		"As Doos	wed"										
Sulfate	Anions Liquid	As Recei	801	6.65	20.0	mg/L		50	1 2 4 2	10/13/23	0740	2507800	1
Chloride			2.98	0.134	0.400	mg/L		2		10/13/23		2507800	
Fluoride			0.262	0.0660	0.200	mg/L mg/L		2	LINITZ	10/15/25	2220	2307000	2
	nalysis-CVAA					8		_					
-	Vapor Mercury,	Liquid "	As Received"										
Mercury	v upor mercury,	U U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1208	2507487	3
•	alysis-ICP-MS	U	n.b	0.0000070	0.000200	ing/L	1.00		51 2	10/15/25	1200	2307 107	5
	05A/6020B "As	Received	"										
Antimony	05A/0020D As	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1520	2507328	4
Barium		U	0.0300	0.000670	0.00400	mg/L mg/L	1.00		TRD	10/14/23	1520	2307320	-
Beryllium		U	ND	0.000200	0.000500	mg/L	1.00						
Cadmium		J	0.000689	0.000300	0.00100	mg/L	1.00						
Chromium		U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt			0.169	0.000300	0.00100	mg/L	1.00	1					
Lead		U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium			0.0214	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	l	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			0.470	0.0260	0.0750	mg/L	1.00	5	PRB	10/15/23	2116	2507328	5
Calcium			205	0.400	1.00	mg/L	1.00	5					
Arsenic		U	ND	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1612	2507328	6
Solids Ana	alysis												
SM2540C	Dissolved Solid	s "As Rec	eived"										
Total Dissolv	red Solids		1170	4.76	20.0	mg/L			CH6	10/12/23	1423	2507357	7
The follow	ving Prep Metho	ds were p	erformed:										
Method	Γ	Description	n		Analyst	Date	r	Tim	e Pr	ep Batch			
SW846 30054		CP-MS 3005			SD	10/12/23		1525		07327			
SW846 7470			Mercury Prep Liquid		EK1	10/12/23		1120		07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta Gaaraja 20208		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-2	Project:	GPCC00100
Sample ID:	640869006	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method		
The following Analy	The following Analytical Methods were performed:									
Method	Description			1	Analy	st 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									

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

									nep	on Duie.	000	0001 20,	2020
	Company : Address :		orgia Power Compa Ralph McGill Blv										
			-										
	Contact:		anta, Georgia 3030 Abraham	)8									
	Project:	5	wright CCR Grou	dwater Compli	anaa A D1								
			Ũ	idwater Compil	anceAPT								
	Client Sample		K-AP1-FD-01				oject:			200100			
	Sample ID:	640	869007			Cli	ient ID:	:	GPCC	2001			
	Matrix:	WG	r										
	Collect Date:	09-0	OCT-23 00:00										
	Receive Date:	11-0	OCT-23										
	Collector:	Clie											
	concetor.	Che											
Parameter	Q	ualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Ion Chroma	atography	-											
	Anions Liquid "	'As Recei	ved"										
Sulfate	Allons Liquid	AS RECEI	804	13.3	40.0	mg/L		100	1 2 4 2	10/13/23	0820	2507800	1
Chloride			3.06	0.134	0.400	mg/L mg/L		2		10/13/23		2507800	
Fluoride			0.283	0.0660	0.200	mg/L		2	271112	10/13/25	2231	2007000	-
	nalysis-CVAA		0.200	0.0000	0.200	ing 1		-					
-	Vapor Mercury,	Liquid "/	As Received"										
Mercury	vapor Mercury,	U	ND	0.0000670	0.000200	ma/I	1.00	1	JP2	10/13/23	1213	2507487	3
	alysis-ICP-MS	U	ND	0.0000070	0.000200	mg/L	1.00	1	JF 2	10/13/23	1213	2307487	3
	•	D · 1											
	05A/6020B "As			0.00100	0.00000	~	1.00			10/11/22			
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1524	2507328	4
Barium		T	0.0313	0.000670	0.00400	mg/L mg/I	1.00 1.00	1					
Beryllium Cadmium		U J	ND 0.000635	0.000200 0.000300	0.000500 0.00100	mg/L mg/L	1.00	1 1					
Chromium		J U	0.000033 ND	0.00300	0.0100	mg/L mg/L	1.00	1					
Cobalt		U	0.192	0.000300	0.00100	mg/L mg/L	1.00	1					
Lead		U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium			0.0238	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					
Arsenic		U	ND	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23		2507328	
Boron			0.492	0.0260	0.0750	mg/L	1.00	5	PRB	10/15/23	2118	2507328	6
Calcium			218	0.400	1.00	mg/L	1.00	5					
Solids Ana	lysis												
SM2540C	Dissolved Solids	s "As Rec	eived"										
Total Dissolve	ed Solids		1210	4.76	20.0	mg/L			CH6	10/12/23	1423	2507357	7
		1	C 1										
The follow	ing Prep Method	is were pe	erformed:										
The follow Method	• •	escription			Analyst	Date	-	Time	e Pr	ep Batch			
	D	-	n		Analyst SD	Date 10/12/23		Гіте 1525		ep Batch 07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1-FD-01	Project:	GPCC00100
Sample ID:	640869007	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analytical Methods were performed:								
Method	Description			1	Analys	st 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							

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

									Rep	on Date.	000	0001 23,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blve										
			anta, Georgia 3030										
	Contact:		i Abraham	0									
	Project:		wright CCR Groun	dwater Compli	ance AP1								
			-	dwater compi					CDCC	200100			
	Client Sample		K-AP1PZ-4				oject:			200100			
	Sample ID:		869008			Cl	ient ID	:	GPCC	2001			
	Matrix:	WG											
	Collect Date:	10-0	OCT-23 09:10										
	Receive Date:	: 11-0	OCT-23										
	Collector:	Clie	ent										
Parameter	(	Qualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chroma	atography												
EPA 300.0	Anions Liquid	"As Recei	ived"										
Chloride	-		5.59	0.335	1.00	mg/L		5	LXA2	10/13/23	2321	2507800	1
Fluoride			0.565	0.165	0.500	mg/L		5					
Sulfate			1370	26.6	80.0	mg/L		200	LXA2	10/13/23	0851	2507800	2
Mercury A	nalysis-CVAA												
7470 Cold	Vapor Mercury	, Liquid "A	As Received"										
Mercury	1 0	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1214	2507487	3
Metals Ana	alysis-ICP-MS					-							
SW846 300	05A/6020B "As	Received	"										
Arsenic		J	0.00302	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1616	2507328	4
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23		2507328	5
Barium			0.0395	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	0.000518	0.000300	0.00100	mg/L	1.00	1					
Lead		U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		J	0.00657	0.00300	0.0100	mg/L	1.00	1					
Molybdenum			0.00398	0.000200	0.00100	mg/L	1.00	1					
Selenium		U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium Boron		U	ND 4.02	0.000600 0.130	0.00200 0.375	mg/L mg/L	1.00 1.00	1 25	PRB	10/15/22	2120	2507328	6
Calcium			4.02	2.00	5.00	mg/L	1.00		IND	10/13/23	2120	2301328	0
Solids Ana	lysis		10	2.00	5.00	111 <u>6</u> / L	1.00	23					
	Dissolved Solid	le "Ae Roo	eived"										
Total Dissolve		13 AS NEC	2030	23.8	100	mg/L			CH6	10/12/23	1423	2507357	7
	ing Prep Metho	de were re		23.0	100	mg/L			0110	10/12/23	1423	2301331	/
Method	• ·	Description			Analyst	Date	,	Time	Dr.	ep Batch			
SW846 3005A		CP-MS 3005			Analyst SD	10/12/23		$\frac{11m}{1525}$		07327			
SW846 30054 SW846 74704			Mercury Prep Liquid		SD EK1	10/12/23		1525 1120		07327 07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
~			
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-4	Project:	GPCC00100
Sample ID:	640869008	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method	
The following Analy	The following Analytical Methods were performed:								
Method	Description				Analys	st 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								

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

Company :         Georgia Power Company, Southern Company Address :         241 Ralph McGill Bivd NE, Bin 10160           Contact :         Joju Abraham Project:         Atlanta, Georgia 30308 Contact :         Southern Compliance API           Contact :         Joju Abraham Project:         Arkwright CCR Groundwater Compliance API         Project:         GPCC00100           Sample ID:         640869009         Client ID:         GPCC0010           Matrix :         WQ         Client ID:         GPCC0010           Matrix :         WQ         Client ID:         GPCC0010           Collect Date:         11-0CT-23 09:30         Frameter         Qualifier         Result         DL         RL         Units         PF         DF         Analyst         Date         Time Batch         Mc           Ion Chromatography         EPA 300.0 Anions Liquid "As Received"         Hohoide         U         ND         0.0670         0.200         mg/L         1         LXA2         10/1323         0922         2507800           Fundet         U         ND         0.0670         0.200         mg/L         1         LXA2         10/1323         0922         2507800           Fundet         U         ND         0.00070         0.000000         mg/L         10 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>nep</th> <th>on Dute.</th> <th>000</th> <th>0001 20,</th> <th>2023</th>										nep	on Dute.	000	0001 20,	2023
$\begin{tabular}{ c c c c c c } \hline Contact: Joju Abraham & Project: Arkwright CCR Groundwater Compliance AP1 & Project: GPCC0010 & Sample ID: ARK-AP1-FB-02 & Project: GPCC001 & GPCC00000 & GPCC00000 & GPCC000000 & GPCC000000 & GPCC000000 & GPCC0000000 & GPCC000000 & GPCC000000 & GPCC0000000 & GPCC000000 &$														
Project:         Arkwright CCR Groundwater ComplianceAP1           Client Sample ID:         640869009         Client ID:         GPCC00100           Sample ID:         640869009         Client ID:         GPCC001           Matrix:         WQ         Client ID:         GPCC00100           Matrix:         WQ         Collect Date:         10-OCT-23 09:30           Receive Date:         11-OCT-23         GPCC001         Fine Batch Me           Parameter         Qualifier         Result         DL         RL         Units         PF         DF         Analyst Date         Time Batch Me           PA300.0 Anions Liquid "As Received"          GPCA300.0 mg/L         1         LXA2         10/13/23         0922         2507800           Buoide         U         ND         0.0330         0.100         mg/L         1         LXA2         10/13/23         0922         2507800           Sufate         U         ND         0.00030         0.000         mg/L         1         LXA2         10/13/23         1216         2507487           Mercury Analysis-CP-MS         V         ND         0.000000         mg/L         1.00         1         PR         10/14/23         1531         2507328					3									
Client Sample ID:         ARK-API-FB-02         Project:         GPCC00100           Sample ID:         640869009         Client ID:         GPCC001           Matrix:         WQ         Collect Date:         10-OCT-23 09:30         Receive Date:         11-OCT-23           Collector:         Client         Client ID:         GPCC001         GPCC001           Parameter         Qualifier         Result         DL         RL         Units         PF         DF         Analyst Date         Time Batch         Me           Ion Chromatography         EPA 300.0 Anions Liquid "As Received"         EPA 300.0 Anions Liquid "As Received"         Mercury Analysis-CVAA         ND         0.00330         0.100         mgL         1         LXA2         10/13/23         0922         2507800           Pluoride         U         ND         0.00330         0.100         mgL         1         LXA2         10/13/23         0212         2507800           Mercury Analysis-CPAMS         ND         0.0000670         0.000000         mgL         1.00         1         JP2         10/13/23         1216         2507487           Matimony         U         ND         0.000070         0.000000         mgL         1.00         1         JP2<														
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Project:	Ark	wright CCR Ground	lwater Compli	ianceAP1								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Client Sample ID:	AR	K-AP1-FB-02			Pro	oject:		GPCC	200100			
Collect Date:         10-OCT-23 09:30           Receive Date:         11-OCT-23           Collector:         Client           Parameter         Qualifier         Result         DL         RL         Units         PF         DF         Analyst         Date         Time Batch         Me           Ion Chromatography         EPA 300.0 Anions Liqui "As Received"         D0         0.0670         0.200         mg/L         1         LXA2         10/13/23         0922         2507800           Suffare         U         ND         0.0670         0.200         mg/L         1         LXA2         10/13/23         0922         2507800           Suffare         U         ND         0.0330         0.100         mg/L         1           Mercury Analysis-CVAA         V         ND         0.0000670         0.00000         mg/L         1.00         1         JP2         10/13/23         1216         2507487           Metals Analysis-ICP-MS         W845         OSO5A/6020B "As Received"         Mminony         U         ND         0.000050         mg/L         1.00         1         PRB         10/14/23         1531         2507328           Barium         U         ND         0.000300		Sample ID:	640	869009			Cli	ient ID	:	GPCC	2001			
Receive Date:         11-OCT-23 Collector:         Collector:         Client           Parameter         Qualifier         Result         DL         RL         Units         PF         DF         Analyst         Date         Time Batch         Model           Ion Chromatography         EPA 300.0 Anions Liquid "As Received"             Model         U         ND         0.0670         0.200         mg/L         1         LXA2         10/13/23         0922         2507800           Sufate         U         ND         0.0330         0.100         mg/L         1         LXA2         10/13/23         0922         2507800           Sufate         U         ND         0.0000670         0.00020         mg/L         1         LXA2         10/13/23         1216         2507487           Mercury         U         ND         0.0000670         0.00020         mg/L         1.00         1         PRB         10/14/23         1531         2507328           Bariam         U         ND         0.000000         0.00100         mg/L         1.00         1         Received"           Antimony         U         ND         0.000030         0.00100		Matrix:	WQ	)										
Collector:ClientParameterQualifierResultDLRLUnitsPFDFAnalystDateTimeBatchMeIon ChromatographyEPA 30.0 Anions Liquid "As Received"ChlorideUND0.06700.200mg/L1LXA210/13/2309222507800PlanideUND0.03300.100mg/L1LXA210/13/2309222507800SulfateUND0.0000700.000200mg/L1LXA210/13/2312162507487MercuryUND0.00006700.000200mg/L1.001JP210/13/2312162507487Metals Analysis-ICP-MSSW846 3005A/6020B "As Received"AntimonyUND0.0000700.00000mg/L1.001BarylliniUND0.0000700.00010mg/L1.001BeryllininUND0.000300.00100mg/L1.001CadniumUND0.0003000.00100mg/L1.001CadriumUND0.0003000.00100mg/L1.001CadriumUND0.0003000.00100mg/L1.001CadriumUND0.0003000.00100mg/L1.001LindiumUND0.0003000.00100mg/L1.001CadriumUND0.000300		Collect Date:	10-0	OCT-23 09:30										
Parameter         Qualifier         Result         DL         RL         Units         PF         DF         Analyst         Date         Time         Batch         Me           Ion Chromatography         EPA 300.0 Anions Liquid "As Received"		Receive Date:	11-0	OCT-23										
Ion Chromatography           EPA 300.0 Anions Liquid "As Received"           Chloride         U         ND         0.0670         0.200         mg/L         1         LXA2         10/13/23         0922         2507800           Sulfate         U         ND         0.0330         0.100         mg/L         1         LXA2         10/13/23         0922         2507800           Sulfate         U         ND         0.0330         0.100         mg/L         1         LXA2         10/13/23         0922         2507800           Mercury Analysis-CVAA           7470 Cold Vapor Mercury, Liquid "As Received"           Mercury         U         ND         0.0000670         0.00200         mg/L         1.00         1         JP2         10/14/23         1531         2507328           Barium         U         ND         0.0000200         0.000000         mg/L         1.00         1         RB         10/14/23         1531         2507328           Barium         U         ND         0.0000200         0.000100         mg/L         1.00         1            U         ND		Collector:	Clie	ent										
Ion Chromatography           EPA 300.0 Anions Liquid "As Received"           Chloride         U         ND         0.0670         0.200         mg/L         1         LXA2         10/13/23         0922         2507800           Sulfate         U         ND         0.0330         0.100         mg/L         1         LXA2         10/13/23         0922         2507800           Sulfate         U         ND         0.0330         0.100         mg/L         1         LXA2         10/13/23         0922         2507800           Mercury Analysis-CVAA           7470 Cold Vapor Mercury, Liquid "As Received"           Mercury         U         ND         0.0000670         0.00200         mg/L         1.00         1         JP2         10/14/23         1531         2507328           Barium         U         ND         0.0000200         0.000000         mg/L         1.00         1         RB         10/14/23         1531         2507328           Barium         U         ND         0.0000200         0.000100         mg/L         1.00         1            U         ND														
EPA 300.0 Anions Liquid "As Received"         Chloride       U       ND       0.0670       0.200       mg/L       1       LXA2       10/13/23       0922       2507800         Fluoride       U       ND       0.0330       0.100       mg/L       1       LXA2       10/13/23       0922       2507800         Sulfate       U       ND       0.133       0.400       mg/L       1       LXA2       10/13/23       121       2507800         Mercury       Vallaysis-CVAA       ND       0.0000670       0.000200       mg/L       1.00       1       JP2       10/13/23       121       2507487         Mercury       U       ND       0.0000670       0.000000       mg/L       1.00       1       JP2       10/14/23       1531       2507328         Barium       U       ND       0.0000670       0.00400       mg/L       1.00       1       Eves       V			fier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Chloride       U       ND       0.0670       0.200       mg/L       1       LXA2       10/13/23       0922       2507800         Fluoride       U       ND       0.0330       0.100       mg/L       1 <td< td=""><td>Ion Chroma</td><td>atography</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Ion Chroma	atography												
Fluoride         U         ND         0.033         0.100         mg/L         1           Sulfate         U         ND         0.133         0.400         mg/L         1           Mercury Analysis-CVAA         T         ND         0.000070         0.000200         mg/L         1.00         1         JP2         10/13/23         12/16         2507487           Mercury         U         ND         0.000070         0.000200         mg/L         1.00         1         JP2         10/13/23         12/16         2507487           Mercury         U         ND         0.000070         0.000400         mg/L         1.00         1         JP2         10/13/23         15/1         2507328           SW846 3005A/6020B "As Received"          ND         0.00000         0.00010         mg/L         1.00         1         1.51         2507328           Barium         U         ND         0.000300         0.00100         mg/L         1.00         1	EPA 300.0	Anions Liquid "As	Recei	ved"										
SulfateUND0.1330.400mg/L1Mercury Analysis-CVA </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>LXA2</td> <td>10/13/23</td> <td>0922</td> <td>2507800</td> <td>1</td>							-			LXA2	10/13/23	0922	2507800	1
Mercury Analysis-CVAA           7470 Cold Vapor Mercury, Liquid "As Received"           Mercury         U         ND         0.0000670         0.000200         mg/L         1.00         1         JP2         10/13/23         1216         2507487           Metals Analysis-ICP-MS							-							
7470 Cold Vapor Mercury, Liquid "As Received"         Mercury       U       ND       0.0000670       0.000200       mg/L       1.00       1       JP2       10/13/23       1216       2507487         Metcury       U       ND       0.0000670       0.000200       mg/L       1.00       1       JP2       10/13/23       1216       2507487         Metcury       U       ND       0.00100       0.00300       mg/L       1.00       1       JP2       10/14/23       1531       2507328         Barium       U       ND       0.000200       0.000500       mg/L       1.00       1       PRB       10/14/23       1531       2507328         Barium       U       ND       0.000200       0.000500       mg/L       1.00       1       PRB       10/14/23       1531       2507328         Gadinum       U       ND       0.000200       0.000500       mg/L       1.00       1       PRB       10/14/23       1531       2507328         Gadinum       U       ND       0.000300       0.00100       mg/L       1.00       1       PRB       10/14/23       10/15         Cobalt       U       ND       0.00300		alaria CVA A	U	ND	0.133	0.400	mg/L		1					
Mercury         U         ND         0.0000670         0.000200         mg/L         1.00         1         JP2         10/13/23         12.16         2507487           Metals Analysis-ICP-MS         SW846 3005A/6020B "As Received"                      10/13/23         12.16         2507487           SW846 3005A/6020B "As Received"          ND         0.00100         0.00300         mg/L         1.00         1         PRB         10/14/23         1531         2507328           Barium         U         ND         0.000200         0.000500         mg/L         1.00         1            507328           Beryllium         U         ND         0.000200         0.000500         mg/L         1.00         1                        1.01         1 <td< td=""><td>-</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	-	-												
Metal Analysis-ICP-MS           SW846 3005A/6020B "As Received"           Antimony         U         ND         0.00100         0.00300         mg/L         1.00         1         PRB         10/14/23         1531         2507328           Barium         U         ND         0.000670         0.00400         mg/L         1.00         1         PRB         10/14/23         1531         2507328           Barium         U         ND         0.000200         0.000500         mg/L         1.00         1         PRB         10/14/23         1531         2507328           Beryllium         U         ND         0.000300         0.00100         mg/L         1.00         1           Cadmium         U         ND         0.000300         0.00100         mg/L         1.00         1           Cadium         U         ND         0.00300         0.0100         mg/L         1.00         1           Cadaium         U         ND         0.000300         0.00100         mg/L         1.00         1           Lead         U         ND         0.000200         0.00100         mg/L         1.00         1         East <t< td=""><td></td><td>Vapor Mercury, Liq</td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Vapor Mercury, Liq					_							
SW846 3005A/6020B "As Received"         Antimony       U       ND       0.00100       0.00300       mg/L       1.00       1       PRB       10/14/23       1531       2507328         Barium       U       ND       0.00070       0.00400       mg/L       1.00       1       PRB       10/14/23       1531       2507328         Beryllium       U       ND       0.000200       0.000500       mg/L       1.00       1       Image: State Sta	•		U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1216	2507487	2
Antimony       U       ND       0.00100       0.00300       mg/L       1.00       1       PRB       10/14/23       1531       2507328         Barium       U       ND       0.000670       0.00400       mg/L       1.00       1           Statistican (Statistican (St		•												
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           Cadrium         U         ND         0.00300         0.00100         mg/L         1.00         1           Cadrium         U         ND         0.00300         0.0100         mg/L         1.00         1           Calcium         U         ND         0.00300         0.0100         mg/L         1.00         1           Chromium         U         ND         0.00300         0.0100         mg/L         1.00         1           Lead         U         ND         0.000300         0.0100         mg/L         1.00         1           Lithium         U         ND         0.000200         0.0100         mg/L         1.00         1           Selenium         U         ND         0.00150         0.00500         mg/L         1.00         1         PRB         10/16/23         104         2507328		5A/6020B "As Rec			0.00100	0.00000	-	1 00			10/11/20			
Beryllium       U       ND       0.000200       0.000500       mg/L       1.00       1         Cadmium       U       ND       0.000300       0.00100       mg/L       1.00       1         Cadrium       U       ND       0.00300       0.00100       mg/L       1.00       1         Cadrium       U       ND       0.00300       0.0100       mg/L       1.00       1         Chromium       U       ND       0.00300       0.0100       mg/L       1.00       1         Cobalt       U       ND       0.00300       0.0100       mg/L       1.00       1         Lead       U       ND       0.000500       0.00200       mg/L       1.00       1         Lidhum       U       ND       0.000200       0.0100       mg/L       1.00       1         Selenium       U       ND       0.000200       0.00100       mg/L       1.00       1         Fallum       U       ND       0.000200       mg/L       1.00       1       I         Boron       U       ND       0.00200       0.00150       mg/L       1.00       1       PRB       10/15/23       1622 <t< td=""><td>•</td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>PRB</td><td>10/14/23</td><td>1531</td><td>2507328</td><td>3</td></t<>	•						-			PRB	10/14/23	1531	2507328	3
Cadmium         U         ND         0.000300         0.00100         mg/L         1.00         1           Calcium         U         ND         0.0800         0.200         mg/L         1.00         1           Chromium         U         ND         0.00300         0.0100         mg/L         1.00         1           Cobalt         U         ND         0.00300         0.0100         mg/L         1.00         1           Lead         U         ND         0.000300         0.00100         mg/L         1.00         1           Lithium         U         ND         0.000300         0.00100         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         0.00200         0.00150         mg/L         1.00         1           Boron         U         ND         0.00200         0.00500         mg/L         1.00         1         PRB         10/15/23         1622         2507328														
Calcium         U         ND         0.0800         0.200         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           Lead         U         ND         0.000500         0.00200         mg/L         1.00         1           Lithium         U         ND         0.000200         0.00100         mg/L         1.00         1           Selenium         U         ND         0.000200         0.00100         mg/L         1.00         1           Selenium         U         ND         0.000200         0.00200         mg/L         1.00         1           Boron         U         ND         0.00200         0.00500         mg/L         1.00         1         PRB         10/16/23         1046         2507328           Arsenic         J         0.00204         0.00200         0.00500         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       0.000300       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         Selenium       U       ND       0.00150       0.00500       mg/L       1.00       1         Boron       U       ND       0.00520       0.0150       mg/L       1.00       1       PRB       10/16/23       1046       2507328         Arsenic       J       0.00204       0.00200       0.00500       mg/L       1.00       1       PRB       10/15/23       1622       2507328         Solids Analysis       S       S       S       10.0       ng/L       CH6       10/12/23       1423       2507357							-							
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         0.000200         0.00100         mg/L         1.00         1           Selenium         U         ND         0.000200         0.00100         mg/L         1.00         1           Selenium         U         ND         0.000200         0.00200         mg/L         1.00         1           Selenium         U         ND         0.00200         0.00200         mg/L         1.00         1           Boron         U         ND         0.00200         0.0150         mg/L         1.00         1         PRB         10/16/23         1046         2507328           Solids Analysis         S         S         S         ND         2.38         10.0         mg/L </td <td>Chromium</td> <td></td> <td>U</td> <td>ND</td> <td>0.00300</td> <td>0.0100</td> <td></td> <td>1.00</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Chromium		U	ND	0.00300	0.0100		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         Boron       U       ND       0.00200       0.00500       mg/L       1.00       1       PRB       10/16/23       1046       2507328         Arsenic       J       0.00204       0.00200       0.00500       mg/L       1.00       1       PRB       10/16/23       1622       2507328         Solids Analysis       S       S       S       S       1.00       1       PRB       10/15/23       1622       2507328         Solids Analysis       S       MD       2.38       10.0       mg/L       CH6       10/12/23       1423       2507357         The following Prep Methods were performed:       Imalyst       Date       Time	Cobalt		U	ND	0.000300	0.00100		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       PRB       10/16/23       1046       2507328         Arsenic       J       0.00204       0.00200       0.00500       mg/L       1.00       1       PRB       10/15/23       1622       2507328         Solids Analysis       J       0.00204       0.00200       0.00500       mg/L       1.00       1       PRB       10/15/23       1622       2507328         SM2540C Dissolved Solids "As Received"       Total Dissolved Solids "As Received"       Total Dissolved Solids       U       ND       2.38       10.0       mg/L       CH6       10/12/23       1423       2507357         The following Prep Methods were performed:       Image: State of the							•							
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         PRB         10/16/23         1046         2507328           Arsenic         J         0.00204         0.00200         0.00500         mg/L         1.00         1         PRB         10/15/23         1622         2507328           Solids Analysis         S         S         V         ND         2.38         10.0         mg/L         1.00         1         PRB         10/15/23         1622         2507328           SM2540C Dissolved Solids "As Received"                   1         1.02         1         423         2507357           Total Dissolved Solids         U         ND         2.38         10.0         mg/L         CH6         10/12/23         1423         2507357           The following Prep Methods were performed:           A							-							
Thallium       U       ND       0.000600       0.00200       mg/L       1.00       1         Boron       U       ND       0.00520       0.0150       mg/L       1.00       1       PRB       10/16/23       1046       2507328         Arsenic       J       0.00204       0.00200       0.00500       mg/L       1.00       1       PRB       10/15/23       1622       2507328         Solids Analysis       S       S       V       ND       2.38       10.0       mg/L       CH6       10/12/23       1423       2507357         Solids Analysis       U       ND       2.38       10.0       mg/L       CH6       10/12/23       1423       2507357         Total Dissolved Solids       U       ND       2.38       10.0       mg/L       CH6       10/12/23       1423       2507357         The following Prep Methods were performed:	•						-							
Boron         U         ND         0.00520         0.0150         mg/L         1.00         1         PRB         10/16/23         1046         2507328           Arsenic         J         0.00204         0.00200         0.00500         mg/L         1.00         1         PRB         10/16/23         1622         2507328           Solids Analysis         S<							-							
Arsenic       J       0.00204       0.00200       0.00500       mg/L       1.00       1       PRB       10/15/23       1622       2507328         Solids Analysis       SM2540C Dissolved Solids "As Received"							-			PRB	10/16/23	1046	2507328	4
Solids Analysis         SM2540C Dissolved Solids "As Received"         Total Dissolved Solids       U       ND       2.38       10.0       mg/L       CH6       10/12/23       1423       2507357         The following Prep Methods were performed:			J											
SM2540C Dissolved Solids "As Received"         Total Dissolved Solids       U       ND       2.38       10.0       mg/L       CH6       10/12/23       1423       2507357         The following Prep Methods were performed:         Method       Description       Analyst       Date       Time       Prep Batch         SW846 7470A Prep       EPA 7470A Mercury Prep Liquid       EK1       10/12/23       1120       2507486		lvsis					8							
Total Dissolved Solids         U         ND         2.38         10.0         mg/L         CH6         10/12/23         1423         2507357           The following Prep Methods were performed:            Method         Description         Analyst         Date         Time         Prep Batch            SW846 7470A Prep         EPA 7470A Mercury Prep Liquid         EK1         10/12/23         1120         2507486		•	s Rec	eived"										
The following Prep Methods were performed:MethodDescriptionAnalystDateTimePrep BatchSW846 7470A PrepEPA 7470A Mercury Prep LiquidEK110/12/2311202507486					2 38	10.0	mo/I			CH6	10/12/23	1423	2507357	6
MethodDescriptionAnalystDateTimePrep BatchSW846 7470A PrepEPA 7470A Mercury Prep LiquidEK110/12/2311202507486					2.50	10.0	111 <sub>0</sub> , 12			2110	10/12/23	1123	2001001	5
SW846 7470A Prep         EPA 7470A Mercury Prep Liquid         EK1         10/12/23         1120         2507486		• •	-			Analyset	Dete	,	т:	, D.,	on Ratah			
											1			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1-FB-02	Project:	GPCC00100
Sample ID:	640869009	Client ID:	GPCC001

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

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

									nep	on Date.	000	.0001 23,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blv										
		Atl	anta, Georgia 3030	8									
	Contact:	Joji	u Abraham										
	Project:	Ark	wright CCR Grour	ndwater Compli	anceAP1								
	Client Sample	ID: AR	K-AP1PZ-3			Pro	oject:		GPCC	200100			
	Sample ID:		0869010				ient ID		GPCC				
	Matrix:	WC				CI		•	oree	.001			
	Collect Date:												
			OCT-23 09:30										
	Receive Date:		OCT-23										
	Collector:	Clie	ent										
Parameter		Jualifier	Result	DL	RL	Units	PF	DE	Apoly	st Date	Tim	a Datah	Method
		Zuaimei	Kesuit	DL	KL	Units	11	DI	Anary	st Date	1 1110	e Daten	Methou
Ion Chroma													
EPA 300.0	Anions Liquid	"As Rece	ived"										
Sulfate			1290	13.3	40.0	mg/L				10/13/23		2507800	
Chloride			4.77	0.335	1.00	mg/L		5	LXA2	10/14/23	0054	2507800	2
Fluoride		U	ND	0.165	0.500	mg/L		5					
Mercury A	nalysis-CVAA												
7470 Cold	Vapor Mercury	, Liquid ".	As Received"										
Mercury		U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1218	2507487	3
Metals Ana	alysis-ICP-MS												
	)5A/6020B "As	Received	"										
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1535	2507328	4
Barium		U	0.0254	0.000670	0.00400	mg/L	1.00	1	THE	10/11/20	1000	2007020	
Beryllium		U	ND	0.000200	0.000500	mg/L	1.00						
Cadmium			0.00195	0.000300	0.00100	mg/L	1.00	1					
Chromium		U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt			0.0639	0.000300	0.00100	mg/L	1.00	1					
Lead		U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium			0.0659	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		J	0.000299	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					
Arsenic		U	ND	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23		2507328	
Boron			1.71	0.104	0.300	mg/L	1.00		PRB	10/15/23	2126	2507328	6
Calcium			434	1.60	4.00	mg/L	1.00	20					
Solids Ana	-												
	Dissolved Solid	s "As Rec											
Total Dissolve	ed Solids		1830	23.8	100	mg/L			CH6	10/12/23	1423	2507357	7
The follow	ing Prep Metho	ds were p	erformed:										
Method	Ι	Descriptio	n		Analyst	Date	,	Tim	e Pr	ep Batch			
SW846 7470A		1	Mercury Prep Liquid		EK1	10/12/23		1120		07486			
SW846 3005A	•	CP-MS 300:	• • •		SD	10/12/23		1525		07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-3	Project:	GPCC00100
Sample ID:	640869010	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analyti	cal Methods v	were performed:							
Method	Description	l				Analys	st Comments		
1	EPA 300.0								
2	EPA 300.0								
3	SW846 7470A	A							
4	SW846 3005A	A/6020B							
5	SW846 3005A	A/6020B							
6	SW846 3005A	A/6020B							
7	SM 2540C								

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

# Certificate of Analysis

									Rep	on Date.	000	0001 25,	2025
	Company : Address :		orgia Power Compa l Ralph McGill Blv										
		Atl	anta, Georgia 3030	)8									
	Contact:	Joj	u Abraham										
	Project:	Ar	kwright CCR Groui	ndwater Compli	anceAP1								
	Client Sample	D: AR	RK-AP1PZ-8			Pro	oject:		GPCC	200100			
	Sample ID:		0869011				ient ID:		GPCC				
	Matrix:	W						-	0100				
	Collect Date:		-OCT-23 11:55										
	Receive Date:		-OCT-23										
	Collector:	Cli	ent										
Parameter	(	Qualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Ion Chrom		2	100000									Buten	
		" A = D = = =	: J!!										
Sulfate	Anions Liquid	As Rece	680	13.3	40.0	ma/I		100	1 2 4 2	10/13/23	1022	2507800	1
Chloride			2.72	0.134	0.400	mg/L mg/L		2		10/13/23		2507800	
Fluoride			0.292	0.0660	0.200	mg/L mg/L		2	LAAL	10/14/23	0125	2307800	2
	nalysis-CVAA		0.272	0.0000	0.200	ing/L		-					
•	Vapor Mercury	Liquid "	As Pacaivad"										
Mercury	v apor Mercury	, Liquid	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1210	2507487	3
	alysis-ICP-MS	U	ND	0.0000070	0.000200	mg/L	1.00	1	JF 2	10/13/23	1219	2307487	5
	05A/6020B "As	D	1"										
	05A/0020B As	Received		0.104	0.200	··· - /T	1.00	20	חחח	10/15/02	2127	2507228	4
Boron Calcium			2.88 311	0.104 1.60	0.300 4.00	mg/L mg/L	1.00 1.00	20 20	PRB	10/15/23	2127	2507328	4
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1546	2507328	5
Barium		U	0.0449	0.000670	0.00400	mg/L mg/L	1.00	1	I KD	10/14/23	1540	2507520	5
Beryllium		U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium		U	0.00125	0.000300	0.00100	mg/L	1.00	1					
Chromium		U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt			0.00118	0.000300	0.00100	mg/L	1.00	1					
Lead		U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		J	0.00315	0.00300	0.0100	mg/L	1.00	1					
Molybdenum			0.729	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					
Arsenic		J	0.00326	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1627	2507328	6
Solids Ana	•												
SM2540C	Dissolved Solid	ls "As Re	ceived"										
Total Dissolv	ed Solids		1370	4.76	20.0	mg/L			CH6	10/12/23	1423	2507357	7
The follow	ing Prep Metho	ds were p	erformed:										
Method	0 1	Descriptio			Analyst	Date	r	Time	e Pr	ep Batch			
SW846 7470			Mercury Prep Liquid		EK1	10/12/23		1120		07486			
SW846 3005		CP-MS 300	• • •		SD	10/12/23		1525		07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-8	Project:	GPCC00100
Sample ID:	640869011	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analyti	cal Methods v	were performed:							
Method	Description	1				Analys	st Comments		
1	EPA 300.0								
2	EPA 300.0								
3	SW846 7470A	Ą							
4	SW846 3005A	A/6020B							
5	SW846 3005A	A/6020B							
6	SW846 3005A	A/6020B							
7	SM 2540C								

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

									кср	on Date.	000	0001 23,	2025
	Company : Address :		orgia Power Compa 1 Ralph McGill Blv										
	Contact:		lanta, Georgia 3030 u Abraham	)8									
	Project:	5	kwright CCR Grou	ndwater Compli	anceAP1								
	Client Sample		RK-AP1PZ-5			Pr	oject:		GPCC	200100			
	Sample ID:		0869012				ient ID	:	GPCC				
	Matrix:	W							01 00				
	Collect Date:		-OCT-23 11:20										
	Receive Date:		-OCT-23 11.20										
	Collector:	Ch	lent										
Parameter	(	Qualifier	Result	DL	RL	Units	PF	DF	Analy	vst Date	Time	e Batch	Method
Ion Chroma	atography	-							-				
	Anions Liquid	"As Rece	eived"										
Sulfate	i intons Elquia	115 1000	1970	26.6	80.0	mg/L		200	LXA2	10/13/23	1054	2507800	1
Chloride			7.01	0.335	1.00	mg/L		5		10/14/23		2507800	
Fluoride		J	0.409	0.165	0.500	mg/L		5					
Mercury A	nalysis-CVAA												
-	Vapor Mercury	. Liquid '	'As Received"										
Mercury	· ••••••••••••••••••••••••••••••••••••	,, u	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1221	2507487	3
•	alysis-ICP-MS					8							
	05A/6020B "As	Receive	d"										
Arsenic	0010002010 113	J	0.00493	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1629	2507328	4
Boron		5	7.16	0.520	1.50	mg/L			PRB	10/15/23		2507328	
Calcium			589	8.00	20.0	mg/L	1.00						
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1549	2507328	6
Barium			0.0362	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						
Chromium		U	ND	0.00300	0.0100	mg/L	1.00						
Cobalt			0.0631	0.000300	0.00100	mg/L	1.00						
Lead		U	ND	0.000500	0.00200	mg/L	1.00						
Lithium			0.343	0.00300	0.0100	mg/L	1.00						
Molybdenum			0.0437	0.000200	0.00100	mg/L	1.00						
Selenium		U	ND ND	0.00150	0.00500	mg/L mg/I	1.00						
Thallium Solids Ana	Incie	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Ana	-	a "A ~ D	aniwad"										
	Dissolved Solid	is "As Ke		22.0	100	··· - /T			CIIC	10/12/22	1402	2507257	7
Total Dissolve			3080	23.8	100	mg/L			CH6	10/12/23	1423	250/35/	7
	ing Prep Metho	-								D 1			
Method		Descriptio			Analyst	Date		Tim		ep Batch			
SW846 3005A SW846 7470A		CP-MS 300 EPA 7470A	05A PREP Mercury Prep Liquid		SD EK1	10/12/23 10/12/23		1525 1120		07327 07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Adamin 20209		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-5	Project:	GPCC00100
Sample ID:	640869012	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Anal	lytical Methods were performed:							
Method	Description			1	Analys	st 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							

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

									nep	on Duie.	000	0001 20,	2020
	Company : Address :		orgia Power Compa Ralph McGill Blvc										
		Atl	anta, Georgia 3030	8									
	Contact:		u Abraham										
	Project:	Ark	wright CCR Groun	dwater Compli	anceAP1								
	Client Sample ID:	AR	K-AP1-EB-02			Pro	oject:		GPCC	200100			
	Sample ID:		0869013				ient ID	•	GPCC				
	Matrix:	WQ				en		•	0100	.001			
	Collect Date:		OCT-23 12:10										
	Receive Date:		OCT-23										
	Collector:	Clie	ent										
Parameter	Quali	fier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chroma													
		Daga	ivod"										
Chloride	Anions Liquid "As	Rece	0.206	0.0670	0.200	mg/L		1	1 8 4 2	10/13/23	1125	2507800	1
Fluoride		U	0.200 ND	0.0330	0.200	mg/L mg/L		1	LAA2	10/13/23	1123	2507800	1
Sulfate		U	ND	0.133	0.400	mg/L		1					
	nalysis-CVAA	-				6							
-	Vapor Mercury, Liq	uid "	As Received"										
Mercury	vapor mercury, Ele	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1223	2507487	2
•	lysis-ICP-MS	U	T(D)	0.0000070	0.000200	ing/L	1.00	1	51 2	10/13/23	1223	2307407	2
	05A/6020B "As Rec	eived	"										
Antimony	JAN 0020D AS Rec	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1553	2507328	3
Barium		U	ND	0.000670	0.00400	mg/L mg/L	1.00		I KD	10/14/23	1555	2507520	5
Beryllium		U	ND	0.000200	0.000500	mg/L	1.00						
Cadmium		U	ND	0.000300	0.00100	mg/L	1.00						
Calcium		J	0.115	0.0800	0.200	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						
Lithium		U	ND	0.00300	0.0100	mg/L	1.00						
Molybdenum		J	0.000205	0.000200	0.00100	mg/L	1.00						
Selenium		U	ND	0.00150	0.00500	mg/L	1.00						
Thallium		U	ND	0.000600	0.00200	mg/L	1.00	1	DDD	10/15/22	10.40	0505000	
Boron		U	ND ND	0.00520	0.0150 0.00500	mg/L mg/I	1.00		PRB	10/16/23			4
Arsenic Solida Anal	lucio	U	ND	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1031	2307328	5
Solids Anal	•	Р											
	Dissolved Solids "A					~			011	10/12/25	1.100	250525-	-
Total Dissolve		U	ND	2.38	10.0	mg/L			CH6	10/12/23	1423	2507357	6
	ing Prep Methods w	ere p	erformed:										
Method	Desc	riptio	n		Analyst	Date	,	Time	e Pr	ep Batch			
SW846 3005A			5A PREP		SD	10/12/23		1525		07327			
SW846 7470A	A Prep EPA 7	470A I	Mercury Prep Liquid		EK1	10/12/23		1120	250	07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1-EB-02	Project:	GPCC00100
Sample ID:	640869013	Client ID:	GPCC001

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

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

# Certificate of Analysis

									Rep	on Date.	000	0001 25,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blv										
			-										
	Contort		anta, Georgia 3030	98									
	Contact:		1 Abraham	- description Commu									
	Project:		wright CCR Ground	ndwater Compli	anceAPI								
	Client Sample ID		K-AP1PZ-7				oject:			200100			
	Sample ID:	640	869014			Cli	ient ID		GPCC	2001			
	Matrix:	WC	Ĵ										
	Collect Date:	10-	OCT-23 13:50										
	Receive Date:	11-	OCT-23										
	Collector:	Clie											
	Concetor.	Circ											
Parameter	Qual	ifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chrom	atography												
EPA 300.0	Anions Liquid "As	Recei	ived"										
Sulfate	-		1370	13.3	40.0	mg/L		100	LXA2	10/13/23	1156	2507800	1
Chloride			6.29	0.335	1.00	mg/L		5	LXA2	10/14/23	0227	2507800	2
Fluoride		J	0.270	0.165	0.500	mg/L		5					
Mercury A	nalysis-CVAA												
7470 Cold	Vapor Mercury, Lie	quid ".	As Received"										
Mercury		U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1224	2507487	3
Metals Ana	alysis-ICP-MS												
SW846 300	05A/6020B "As Re	ceived	"										
Arsenic		J	0.00399	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1633	2507328	4
Boron			2.76	0.104	0.300	mg/L	1.00	20	PRB	10/15/23	2131	2507328	5
Calcium			383	1.60	4.00	mg/L	1.00	20					
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1556	2507328	6
Barium			0.0421	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 0.00100	mg/L	1.00	1					
Cobalt Lead		U	0.00123 ND	0.000300 0.000500	0.00100	mg/L mg/L	1.00 1.00	1 1					
Lithium		J	0.00302	0.000300	0.0100	mg/L	1.00	1					
Molybdenum		J	0.00367	0.000200	0.00100	mg/L mg/L	1.00	1					
Selenium		U	ND	0.00150	0.00500	mg/L mg/L	1.00	1					
Thallium		Ŭ	ND	0.000600	0.00200	mg/L	1.00						
Solids Ana	lvsis					U							
	Dissolved Solids "A	s Rec	eived"										
Total Dissolv		15 100	1960	23.8	100	mg/L			CH6	10/12/23	1/23	2507357	7
				25.0	100	mg/L			0110	10/12/23	1723	2501551	/
	ving Prep Methods v				A 1 :	Deta	-	<b>D</b> .					
Method		criptio			Analyst	Date		<u>Fime</u>		ep Batch			
SW846 74704 SW846 30054			Mercury Prep Liquid 5A PREP		EK1 SD	10/12/23 10/12/23		1120 1525		07486 07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-7	Project:	GPCC00100
Sample ID:	640869014	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analy	tical Methods were performed:							
Method	Description				Analys	st 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							

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

# Certificate of Analysis

									nep	on Dute.	000	0001 20,	2020
	Company : Address :		orgia Power Compa Ralph McGill Blv										
			-										
	Contact:		anta, Georgia 3030 1 Abraham	08									
	Project:			dwatar Compli	anaa A D1								
			wright CCR Grour	idwater Compil	anceAPT				~~~~				
	Client Sample						oject:			200100			
	Sample ID:	640	869015			Cl	ient ID	:	GPCC	2001			
	Matrix:	WG	ŕ										
	Collect Date:	10-0	OCT-23 14:20										
	Receive Date:	11-0	OCT-23										
	Collector:	Clie											
	Concetor.	Circ	ant										
Parameter	0	ualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chrom													
	• • •	A Baar	vod"										
EPA 500.0 Fluoride	Anions Liquid "	As Recei		0.0220	0 100	/T		1	1 2 4 2	10/14/22	0257	2507900	1
Chloride			0.647 10.9	0.0330 1.34	0.100 4.00	mg/L mg/L		1 20		10/14/23 10/13/23		2507800 2507800	
Sulfate			231	2.66	8.00	mg/L		20	LAAL	10/13/23	1529	2307800	2
	nalysis-CVAA		231	2.00	0.00	ing/L		20					
-	-	Liquid "	A a Dessived"										
	Vapor Mercury,			0.0000670	0.000200	/T	1.00	1	102	10/12/22	1000	2507407	2
Mercury Matala Am	India ICD MS	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1226	250/48/	3
	alysis-ICP-MS	<b>.</b>											
	05A/6020B "As	Received											
Boron			0.357	0.0260	0.0750	mg/L	1.00		PRB	10/15/23	2133	2507328	4
Calcium			90.4	0.400	1.00	mg/L	1.00		DDD	10/14/02	1.000	0507200	~
Antimony		U	ND	0.00100 0.000670	0.00300	mg/L	1.00 1.00		PRB	10/14/23	1600	2507328	5
Barium Beryllium		U	0.0347 ND	0.000870	0.00400 0.000500	mg/L mg/I	1.00	1 1					
Cadmium		U	ND ND	0.000200	0.000300	mg/L mg/L	1.00						
Chromium		U	ND	0.00300	0.0100	mg/L mg/L	1.00						
Cobalt		U	0.00140	0.000300	0.00100	mg/L	1.00	1					
Lead		U	ND	0.000500	0.00200	mg/L	1.00						
Lithium		-	0.0189	0.00300	0.0100	mg/L	1.00	1					
Molybdenum			0.00214	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					
Arsenic		J	0.00382	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1635	2507328	6
Solids Ana	lysis												
SM2540C	Dissolved Solids	s "As Rec	eived"										
Total Dissolv			499	2.38	10.0	mg/L			CH6	10/13/23	1601	2508295	7
The follow	ving Prep Method	ls were pe	erformed:										
Method	D	escription	1		Analyst	Date	,	Tim	e Pr	ep Batch			
SW846 3005		CP-MS 3005			SD	10/12/23		1525		07327			
SW846 7470			Mercury Prep Liquid		EK1	10/12/23		1120		07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-10	Project:	GPCC00100
Sample ID:	640869015	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analytic	cal Methods v	vere performed:							
Method	Description	l				Analys	st Comments		
1	EPA 300.0								
2	EPA 300.0								
3	SW846 7470A	A							
4	SW846 3005A	A/6020B							
5	SW846 3005A	A/6020B							
6	SW846 3005A	A/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

# Certificate of Analysis

Report Date: October 23, 2023

									кер	on Date.	OCI	0001 23,	2023
	Company : Address :		orgia Power Compar Ralph McGill Blvd										
	Address :	241		1  NE,  Diff  1010	0								
	_		anta, Georgia 3030	8									
	Contact:		ı Abraham										
	Project:	Ark	wright CCR Groun	dwater Compli	anceAP1								
	Client Sample ID	: AR	K-AP1PZ-11			Pro	oject:		GPCC	200100			
	Sample ID:	640	869016			Cli	ient ID	:	GPCC	2001			
	Matrix:	WC											
	Collect Date:		OCT-23 16:15										
	Receive Date:		OCT-23										
	Collector:	Clie	ent										
Parameter	Oua	lifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	- Batch	Method
Ion Chrom									j			Duten	111001100
	Anions Liquid "As	Rece	ived"										
Chloride	Allons Elquid A	, Rece	1.20	0.0670	0.200	mg/L		1	ΙΧΔ2	10/14/23	0328	2507800	1
Fluoride			0.202	0.0330	0.100	mg/L		1	LITTL	10/14/23	0520	2507000	1
Sulfate			54.3	0.665	2.00	mg/L		5	LXA2	10/13/23	1359	2507800	2
Mercury A	nalysis-CVAA					C							
-	Vapor Mercury, Li	auid "	As Received"										
Mercury	, up of 101010 urj, 21	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1227	2507487	3
•	alysis-ICP-MS					0							
	05A/6020B "As Re	ceived	"										
Boron	0511/00201 11510		0.143	0.00520	0.0150	mg/L	1.00	1	PRB	10/16/23	1050	2507328	4
Arsenic		J	0.00303	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23		2507328	
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23		2507328	
Barium			0.0234	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					
Calcium			27.6	0.0800	0.200	mg/L	1.00						
Chromium		U	ND	0.00300	0.0100	mg/L	1.00						
Cobalt		U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead Lithium		U	ND	0.000500	0.00200	mg/L	1.00 1.00	1 1					
Molybdenum		U J	ND 0.000342	0.00300 0.000200	0.0100 0.00100	mg/L mg/L	1.00	1					
Selenium	L	U U	0.000342 ND	0.000200	0.00500	mg/L mg/L	1.00						
Thallium		U	ND	0.000150	0.00200	mg/L mg/L	1.00						
Solids Ana	lvsis	C	1.2	0.000000	0100200	<u>6</u> /12	1100	•					
	Dissolved Solids "A	As Rec	eived"										
Total Dissolv		15 100	198	2.38	10.0	mg/L			CH6	10/13/23	1601	2508295	7
	ving Prep Methods v	vere n		2.50	10.0	111 <u>6</u> / L			0110	10/15/25	1001	2300273	,
Method	• •	-			Analyset	Date	,	Tim	0 D.	ep Batch			
		criptio			Analyst			Tim		-			
SW846 7470 SW846 3005	-		Mercury Prep Liquid 5A PREP		EK1 SD	10/12/23 10/12/23		1120 1525		07486 07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-11	Project:	GPCC00100
Sample ID:	640869016	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analy	tical Methods were performed:							
Method	Description			A	Analys	st 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

# Certificate of Analysis

Report Date: October 23, 2023

									nep	on Date.			
	Company : Address :		orgia Power Compa l Ralph McGill Blv										
		۸ +1	anta Gaorgia 2020	0									
	Contact:		lanta, Georgia 3030 u Abraham	0									
				duveton Commi	omoo A D1								
	Project:		kwright CCR Groun	idwater Compli	anceAPI								
	Client Sample	ID: AR	RK-AP1-FD-02				oject:			200100			
	Sample ID:	640	0869017			Cl	ient ID	:	GPCC	2001			
	Matrix:	W	G										
	Collect Date:	10-	-OCT-23 00:00										
	Receive Date:		-OCT-23										
	Collector:		ent										
	Collector:	Ch	ent										
Parameter	C	Jualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	- Batch	Method
		Juannei	Result		RL	Onits	11		7 mary	st Date	1 1110	Daten	Wiethou
Ion Chroma													
	Anions Liquid '	"As Rece											
Sulfate			80.1	26.6	80.0	mg/L				10/13/23		2507800	1
Chloride			1.21	0.0670	0.200	mg/L		1	LXA2	10/14/23	0359	2507800	2
Fluoride			0.297	0.0330	0.100	mg/L		1					
Mercury A	nalysis-CVAA												
7470 Cold	Vapor Mercury,	Liquid "	As Received"										
Mercury		U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1233	2507487	3
Metals Ana	alysis-ICP-MS												
SW846 300	05A/6020B "As	Received	1"										
Arsenic		J	0.00319	0.00200	0.00500	mg/L	1.00	1	PRB	10/15/23	1710	2507328	4
Boron		Ū	0.146	0.00520	0.0150	mg/L	1.00	1	PRB	10/16/23		2507328	5
Antimony		U	ND	0.00100	0.00300	mg/L	1.00		PRB	10/14/23		2507328	
Barium			0.0242	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					
Calcium			28.0	0.0800	0.200	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						
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	0.000326	0.000200	0.00100	mg/L	1.00	1					
Selenium		U	ND	0.00150	0.00500	mg/L	1.00						
Thallium	lucio	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Ana	•												
	Dissolved Solids	s "As Re											
Total Dissolve			197	2.38	10.0	mg/L			CH6	10/13/23	1601	2508295	7
The follow	ing Prep Method	ds were p	erformed:										
Method		Descriptio			Analyst	Date	,	Time	e Pr	ep Batch			
SW846 3005A		CP-MS 300			SD	10/12/23		1525		07327			
SW846 74704	A Prep E	PA 7470A	Mercury Prep Liquid		EK1	10/12/23		1120	250	07486			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1-FD-02	Project:	GPCC00100
Sample ID:	640869017	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Analy	ytical Methods were performed:							
Method	Description	st 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

# Certificate of Analysis

Report Date: October 23, 2023

									Rep	on Date.	000	0001 25,	2025
	Company : Address :		orgia Power Compa Ralph McGill Blv										
			anta, Georgia 3030	)8									
	Contact:		1 Abraham		4.51								
	Project:		wright CCR Grou	ndwater Compli	anceAPI								
	Client Sample	ID: AR	K-AP1PZ-9				oject:			200100			
	Sample ID:	640	869018			Cli	ient ID:		GPCC	2001			
	Matrix:	WC	3										
	Collect Date:	11-	OCT-23 08:20										
	Receive Date:	11-	OCT-23										
	Collector:	Clie	ent										
		11.01	<b>D</b>		DI	<b>TT</b> •	DE		. 1				
Parameter		ualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Ion Chroma	atography												
EPA 300.0	Anions Liquid "	As Recei	ived"										
Fluoride			0.964	0.0330	0.100	mg/L		1		10/14/23		2507800	1
Chloride			8.68	2.68	8.00	mg/L		40	LXA2	10/13/23	1501	2507800	2
Sulfate			308	5.32	16.0	mg/L		40					
•	nalysis-CVAA												
7470 Cold	Vapor Mercury,	Liquid ".	As Received"										
Mercury		U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	10/13/23	1234	2507487	3
Metals Ana	lysis-ICP-MS												
SW846 300	)5A/6020B "As I	Received											
Boron			0.707	0.0260	0.0750	mg/L	1.00	5	PRB	10/15/23	2135	2507328	4
Calcium			72.3	0.400	1.00	mg/L	1.00	5					
Antimony		U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	10/14/23	1611	2507328	5
Barium			0.0252	0.000670	0.00400	mg/L	1.00	1					
Beryllium			0.000523	0.000200	0.000500	mg/L	1.00	1					
Cadmium			0.00112	0.000300	0.00100	mg/L	1.00	1					
Chromium		U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt Lead		T	0.100 ND	0.000300 0.000500	0.00100 0.00200	mg/L	1.00 1.00	1 1					
Lithium		U	0.145	0.00300	0.00200	mg/L mg/L	1.00	1					
Molybdenum		J	0.000323	0.000200	0.00100	mg/L mg/L	1.00	1					
Selenium		Ŭ	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium		U	ND	0.000600	0.00200	mg/L	1.00	1					
Arsenic		J	0.00224	0.00200	0.00500	mg/L			PRB	10/15/23	1641	2507328	6
Solids Anal	lysis					U							
	J Dissolved Solids	"As Rec	eived"										
Total Dissolve		115 1100	527	2.38	10.0	mg/L			CH6	10/13/23	1601	2508295	7
	ing Prep Method	s were n				8							
Method		-			Analyst	Data	-	Circo.	. D.	an Ratah			
		escriptio			Analyst	Date		Fime		ep Batch			
SW846 7470A SW846 3005A		PA 7470A 1 P-MS 3003	Mercury Prep Liquid 5A PREP		EK1 SD	10/12/23 10/12/23		1120 1525		07486 07327			

# Certificate of Analysis

Report Date: October 23, 2023

Company :	Georgia Power Company, Southern Company		
Address :	241 Ralph McGill Blvd NE, Bin 10160		
	Atlanta, Georgia 30308		
Contact:	Joju Abraham		
Project:	Arkwright CCR Groundwater ComplianceAP1		
Client Sample ID:	ARK-AP1PZ-9	Project:	GPCC00100
Sample ID:	640869018	Client ID:	GPCC001

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method		
The following Analy	tical 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

# QC Summary

Report Date: October 23, 2023

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

Page 1 of 9

Workorder: 640869

**Contact:** 

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Ion Chromatography								
Batch 2507800								
QC1205545078 640869001 DUP Chloride		1.77	1.83	mg/L	2.97 ^		(+/-1.00) LXA2	10/13/23 02:40
Fluoride		0.426	0.479	mg/L	11.6 ^		(+/-0.100)	10/13/23 20:47
Sulfate		58.3	59.2	mg/L	1.5		(0%-20%)	10/13/23 02:40
QC1205545079 640869003 DUP Chloride		1.81	1.80	mg/L	0.636		(0%-20%)	10/13/23 04:44
Fluoride		0.225	0.229	mg/L	1.94 ^		(+/-0.100)	
Sulfate		2.17	2.15	mg/L	0.767		(0%-20%)	
QC1205545077 LCS Chloride	5.00		4.58	mg/L		91.6	(90%-110%)	10/13/23 01:39
Fluoride	2.50		2.39	mg/L		95.6	(90%-110%)	
Sulfate	10.0		9.46	mg/L		94.6	(90%-110%)	
QC1205545076 MB Chloride		U	ND	mg/L				10/13/23 01:08
Fluoride		U	ND	mg/L				
Sulfate		U	ND	mg/L				
QC1205545080 640869001 PS Chloride	5.00	0.355	5.05	mg/L		93.8	(90%-110%)	10/13/23 03:11

Workorder: 640869								
Workorder: 640869 Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anls	Page 2 of 9 t Date Time
Ion ChromatographyBatch2507800	NOM	<u>Sample Quai</u>	ŲĊ		KFD 70	KEC %	Kange Ams	t Date Time
Fluoride	2.50	0.426	2.82	mg/L		95.5	(90%-110%) LXA	A2 10/13/23 21:18
Sulfate	10.0	11.7	22.3	mg/L		106	(90%-110%)	10/13/23 03:11
QC1205545081 640869003 PS Chloride	5.00	1.81	6.87	mg/L		101	(90%-110%)	10/13/23 05:15
Fluoride	2.50	0.225	2.68	mg/L		98.1	(90%-110%)	
Sulfate	10.0	2.17	12.1	mg/L		99.2	(90%-110%)	
Metals Analysis - ICPMS Batch 2507328 —								
QC1205544129 LCS Antimony	0.0500		0.0484	mg/L		96.8	(80%-120%) PH	RB 10/14/23 14:37
Arsenic	0.0500		0.0510	mg/L		102	(80%-120%)	10/15/23 15:48
Barium	0.0500		0.0560	mg/L		112	(80%-120%)	10/14/23 14:37
Beryllium	0.0500		0.0518	mg/L		104	(80%-120%)	
Boron	0.100		0.104	mg/L		104	(80%-120%)	10/16/23 10:26
Cadmium	0.0500		0.0507	mg/L		101	(80%-120%)	10/14/23 14:37
Calcium	2.00		2.08	mg/L		104	(80%-120%)	
Chromium	0.0500		0.0480	mg/L		96.1	(80%-120%)	
Cobalt	0.0500		0.0479	mg/L		95.8	(80%-120%)	

		2 C S		J					
Workorder: 640869 Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Page 3 of 9 Date Time
Metals Analysis - ICPMSBatch2507328	NOM	Sample Quar	<u>v</u> c	Units	<u> </u>	<u> </u>	Kange	Allist	Date Time
Lead	0.0500		0.0485	mg/L		97	(80%-120%)	) PRB	10/14/23 14:37
Lithium	0.0500		0.0496	mg/L		99.2	(80%-120%)	)	
Molybdenum	0.0500		0.0521	mg/L		104	(80%-120%)	)	
Selenium	0.0500		0.0520	mg/L		104	(80%-120%)	)	
Thallium	0.0500		0.0474	mg/L		94.9	(80%-120%)	)	
QC1205544128 MB Antimony		U	ND	mg/L					10/14/23 14:34
Arsenic		U	ND	mg/L					10/15/23 15:46
Barium		U	ND	mg/L					10/14/23 14:34
Beryllium		U	ND	mg/L					
Boron		U	ND	mg/L					10/16/23 10:24
Cadmium		U	ND	mg/L					10/14/23 14:34
Calcium		U	ND	mg/L					
Chromium		U	ND	mg/L					
Cobalt		U	ND	mg/L					
Lead		U	ND	mg/L					

Workorder: 640869			~	2	•					P	age 4 of 9
Parmname	NON	M	Sample	Qual	QC	Units	RPD% REC	C% Ran	nge Anlst	Dat	te Time
Metals Analysis - ICPMS Batch 2507328											
Lithium				U	ND	mg/L			PR	.B 10/14	4/23 14:34
Molybdenum				U	ND	mg/L					
Selenium				U	ND	mg/L					
Thallium				U	ND	mg/L					
QC1205544130 640869001 MS Antimony	0.0500	U	ND		0.0497	mg/L	99.4	4 (75%-12	25%)	10/14	4/23 14:44
Arsenic	0.0500	J	0.00219		0.0530	mg/L	102	2 (75%-12	25%)	10/1:	5/23 15:52
Barium	0.0500		0.0609		0.115	mg/L	108	8 (75%-12	25%)	10/14	4/23 14:44
Beryllium	0.0500		0.00187		0.0544	mg/L	105	5 (75%-12	25%)		ļ
Boron	0.100		0.108		0.216	mg/L	107	7 (75%-12	25%)	10/16	6/23 10:29
Cadmium	0.0500	J	0.000410		0.0516	mg/L	102	2 (75%-12	25%)	10/14	4/23 14:44
Calcium	2.00		19.3		21.0	mg/L	N/A	A (75%-12	25%)		
Chromium	0.0500	J	0.00462		0.0539	mg/L	98.5	5 (75%-12	25%)		
Cobalt	0.0500		0.00672		0.0558	mg/L	98.2	2 (75%-12	25%)		
Lead	0.0500	U	ND		0.0494	mg/L	98.7	7 (75%-12	25%)		
Lithium	0.0500	J	0.00944		0.0604	mg/L	102	2 (75%-12	25%)		

Workorder: 640869										Page 5 of 9			
Parmname	NON	M	Sample Qual	QC	Units	RPD%	REC%	Range A	Anlst	Date Time			
Metals Analysis - ICPMSBatch2507328													
Molybdenum	0.0500	U	ND	0.0530	mg/L		106	(75%-125%)	PRB	10/14/23 14:44			
Selenium	0.0500	J	0.00299	0.0538	mg/L		102	(75%-125%)					
Thallium	0.0500	U	ND	0.0479	mg/L		95.8	(75%-125%)					
QC1205544131 640869001 MSD Antimony	0.0500	U	ND	0.0508	mg/L	2.07	101	(0%-20%)		10/14/23 14:48			
Arsenic	0.0500	J	0.00219	0.0528	mg/L	0.334	101	(0%-20%)		10/15/23 15:54			
Barium	0.0500		0.0609	0.117	mg/L	1.29	111	(0%-20%)		10/14/23 14:48			
Beryllium	0.0500		0.00187	0.0556	mg/L	2.12	107	(0%-20%)					
Boron	0.100		0.108	0.214	mg/L	0.707	106	(0%-20%)		10/16/23 10:31			
Cadmium	0.0500	J	0.000410	0.0528	mg/L	2.47	105	(0%-20%)		10/14/23 14:48			
Calcium	2.00		19.3	21.1	mg/L	0.633	N/A	(0%-20%)					
Chromium	0.0500	J	0.00462	0.0543	mg/L	0.793	99.3	(0%-20%)					
Cobalt	0.0500		0.00672	0.0559	mg/L	0.181	98.4	(0%-20%)					
Lead	0.0500	U	ND	0.0493	mg/L	0.306	98.4	(0%-20%)					
Lithium	0.0500	J	0.00944	0.0606	mg/L	0.261	102	(0%-20%)					
Molybdenum	0.0500	U	ND	0.0544	mg/L	2.52	109	(0%-20%)					

Workorder: 640869		~	-	•	-				Page 6 of 9
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Metals Analysis - ICPMS Batch 2507328									
Selenium	0.0500 J	0.00299		0.0538	mg/L	0.00558	102	(0%-20%) PRB	10/14/23 14:48
Thallium	0.0500 U	ND		0.0480	mg/L	0.142	96	(0%-20%)	
QC1205544132 640869001 SDILT Antimony	U	ND	U	ND	ug/L	N/A		(0%-20%)	10/14/23 14:55
Arsenic	J	2.19	U	ND	ug/L	N/A		(0%-20%)	10/15/23 15:58
Barium		60.9		12.1	ug/L	.317		(0%-20%)	10/14/23 14:55
Beryllium		1.87	J	0.369	ug/L	1.18		(0%-20%)	
Boron		108		22.8	ug/L	5.38		(0%-20%)	10/16/23 10:35
Cadmium	J	0.410	U	ND	ug/L	N/A		(0%-20%)	10/14/23 14:55
Calcium		19300		4020	ug/L	4.06		(0%-20%)	
Chromium	J	4.62	U	ND	ug/L	N/A		(0%-20%)	
Cobalt		6.72		1.44	ug/L	6.95		(0%-20%)	
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	
Lithium	J	9.44	U	ND	ug/L	N/A		(0%-20%)	
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)	
Selenium	J	2.99	U	ND	ug/L	N/A		(0%-20%)	

Workorder:	640869				~	~	•	5					Page 7 of 9
Parmname			NO	M	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis	- ICPMS 2507328												
Thallium				U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	10/14/23 14:55
<b>Metals Analysis-</b> Batch	-Mercury 2507487												
QC12055444 Mercury	431 640813001	DUP		U	ND	U	ND	mg/L	N/A			JP2	10/13/23 11:53
QC12055444 Mercury	430 LCS		0.00200				0.00198	mg/L		99.2	(80%-120%)		10/13/23 11:47
QC12055444 Mercury	429 MB					U	ND	mg/L					10/13/23 11:45
QC12055444 Mercury	432 640813001	MS	0.00200	U	ND		0.00134	mg/L		67.1*	(75%-125%)		10/13/23 11:55
QC12055444 Mercury	434 640813001	PS	2.00	U	ND		1.38	ug/L		68.8*	(80%-120%)		10/13/23 11:58
QC12055444 Mercury	433 640813001	SDILT		U	ND	U	ND	ug/L	N/A		(0%-10%)		10/13/23 11:56
<b>Solids Analysis</b> Batch	2507350												
QC12055441 Total Dissolved	191 640698013 d Solids	DUP		U	ND	U	ND	mg/L	N/A			CH6	10/12/23 13:23
QC12055441 Total Dissolved			300				303	mg/L		101	(95%-105%)		10/12/23 13:23
QC12055441 Total Dissolved						U	ND	mg/L					10/12/23 13:23

## **GEL LABORATORIES LLC**

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

## QC Summary

Workorder: 640869										Pag	e 8 of 9
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis Batch 2507357											
QC1205544196 640683001 DUP Total Dissolved Solids		235		228	mg/L	3.02		(0%-5%)	CH6	10/12/2	23 14:23
QC1205544195 LCS Total Dissolved Solids	300			302	mg/L		101	(95%-105%)	I	10/12/2	23 14:23
QC1205544194 MB Total Dissolved Solids			U	ND	mg/L					10/12/2	23 14:23
Batch 2508295 —											
QC1205545882 641034002 DUP Total Dissolved Solids		395		386	mg/L	2.3		(0%-5%)	CH6	10/13/2	23 16:01
QC1205545878 LCS Total Dissolved Solids	300			302	mg/L		101	(95%-105%)	I	10/13/2	23 16:01
QC1205545877 MB Total Dissolved Solids			U	ND	mg/L					10/13/2	23 16:01

#### 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.

## QC Summary

Workor	rder: 640869										Pag	e 9 of 9
Parmna	me	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
ND	Analyte concentration is no	t detected above the	detection lim	it								
Е	% difference of sample and	SD is >10%. Samp	le concentratio	on must r	neet flaggin	g criteria						
NJ	Consult Case Narrative, Da	ta Summary packag	e, or Project N	Aanager o	concerning t	his qualifi	er					
Е	General ChemistryConcer	ntration of the targe	analyte excee	eds the in	strument ca	libration ra	ange					
Q	One or more quality control	criteria have not be	een met. Refer	to the ap	plicable na	rative or D	DER.					
FB	Mercury was found present invalid for reporting to regu	1	centrations in f	field blan	ks received	with these	e samples. D	ata associate	d with the	blank are o	leemed	
N1	See case narrative											
Y	Other specific qualifiers we	re required to prope	erly define the	results. C	Consult case	narrative.						
R	Per section 9.3.4.1 of Meth purposes.	od 1664 Revision E	B, due to matri	x spike re	ecovery issu	es, this res	sult may not	be reported of	or used for	regulatory	complia	nce
В	The target analyte was deter	cted in the associate	d blank.									
e	5-day BODTest replicates reporting purposes	show more than 30	% difference	between	high and lov	v values. T	The data is qu	ualified per tl	ne method	and can be	used for	ī
J	See case narrative for an ex	planation										
^ The R five tim	dicates that spike recovery lin Relative Percent Difference (R les (5X) the contract required sed to evaluate the DUP resul	(RPD) obtained from detection limit (RL	the sample du	plicate (	DUP) is eva	aluated aga	inst the acce	ptance criter	ia when the	e sample is	s greater	
* Indics	ates that a Quality Control par	rameter was not wit	hin specificati	ons								

\* 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 #: 640869

## **Metals**

**Product: Determination of Metals by ICP-MS Analytical Method:** SW846 3005A/6020B **Analytical Procedure:** GL-MA-E-014 REV# 36 **Analytical Batch:** 2507328

**<u>Preparation Method:</u>** SW846 3005A <u>Preparation Procedure:</u> GL-MA-E-006 REV# 14 <u>Preparation Batch:</u> 2507327

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

GEL Sample ID#	Client Sample Identification
640869001	ARK-AP1GWA-1
640869002	ARK-AP1-FB-01
640869003	ARK-AP1GWA-2
640869004	ARK-AP1-EB-01
640869005	ARK-AP1PZ-1
640869006	ARK-AP1PZ-2
640869007	ARK-AP1-FD-01
640869008	ARK-AP1PZ-4
640869009	ARK-AP1-FB-02
640869010	ARK-AP1PZ-3
640869011	ARK-AP1PZ-8
640869012	ARK-AP1PZ-5
640869013	ARK-AP1-EB-02
640869014	ARK-AP1PZ-7
640869015	ARK-AP1PZ-10
640869016	ARK-AP1PZ-11
640869017	ARK-AP1-FD-02
640869018	ARK-AP1PZ-9
1205544128	Method Blank (MB)ICP-MS
1205544129	Laboratory Control Sample (LCS)
1205544132	640869001(ARK-AP1GWA-1L) Serial Dilution (SD)
1205544130	640869001(ARK-AP1GWA-1S) Matrix Spike (MS)
1205544131	640869001(ARK-AP1GWA-1SD) Matrix Spike Duplicate (MSD)

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

### **Data Summary:**

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

### **Calibration Information**

### **CRDL/PQL Requirements**

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were greater than two times the CRDL; therefore the data were not adversely affected. 640869006 (ARK-AP1PZ-2), 640869007 (ARK-AP1-FD-01), 640869008 (ARK-AP1PZ-4), 640869010 (ARK-AP1PZ-3), 640869011 (ARK-AP1PZ-8), 640869012 (ARK-AP1PZ-5), 640869014 (ARK-AP1PZ-7), 640869015 (ARK-AP1PZ-10) and 640869018 (ARK-AP1PZ-9).

### **ICSA/ICSAB Statement**

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

## **Technical Information**

### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 640869005 (ARK-AP1PZ-1), 640869006 (ARK-AP1PZ-2), 640869007 (ARK-AP1-FD-01), 640869008 (ARK-AP1PZ-4), 640869010 (ARK-AP1PZ-3), 640869011 (ARK-AP1PZ-8), 640869012 (ARK-AP1PZ-5), 640869014 (ARK-AP1PZ-7), 640869015 (ARK-AP1PZ-10) and 640869018 (ARK-AP1PZ-9) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. The ICPMS solid samples in this SDG were diluted the standard two times.

Amelanta					64	0869				
Analyte	005	006	007	008	010	011	012	014	015	018
Boron	5X	5X	5X	25X	20X	20X	100X	20X	5X	5X
Calcium	1X	5X	5X	25X	20X	20X	100X	20X	5X	5X

<u>Product:</u> Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer <u>Analytical Method:</u> SW846 7470A <u>Analytical Procedure:</u> GL-MA-E-010 REV# 40 <u>Analytical Batch:</u> 2507487

<u>Preparation Method:</u> SW846 7470A Prep <u>Preparation Procedure:</u> GL-MA-E-010 REV# 40 <u>Preparation Batch:</u> 2507486

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
640869001	ARK-AP1GWA-1
640869002	ARK-AP1-FB-01
640869003	ARK-AP1GWA-2
640869004	ARK-AP1-EB-01
640869005	ARK-AP1PZ-1
640869006	ARK-AP1PZ-2
640869007	ARK-AP1-FD-01
640869008	ARK-AP1PZ-4
640869009	ARK-AP1-FB-02
640869010	ARK-AP1PZ-3
640869011	ARK-AP1PZ-8
640869012	ARK-AP1PZ-5
640869013	ARK-AP1-EB-02

640869014	ARK-AP1PZ-7
640869015	ARK-AP1PZ-10
640869016	ARK-AP1PZ-11
640869017	ARK-AP1-FD-02
640869018	ARK-AP1PZ-9
1205544429	Method Blank (MB)CVAA
1205544430	Laboratory Control Sample (LCS)
1205544433	640813001(NonSDGL) Serial Dilution (SD)
1205544431	640813001(NonSDGD) Sample Duplicate (DUP)
1205544432	640813001(NonSDGS) Matrix Spike (MS)
1205544434	640813001(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
1205544432 (Non SDG 640813001MS)	Mercury	67.1* (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
1205544434 (Non SDG 640813001PS)	Mercury	68.8* (80%-120%)

## **General Chemistry**

**Product: Ion Chromatography Analytical Method:** EPA 300.0 **Analytical Procedure:** GL-GC-E-086 REV# 33 **Analytical Batch:** 2507800 The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
640869001	ARK-AP1GWA-1
640869002	ARK-AP1-FB-01
640869003	ARK-AP1GWA-2
640869004	ARK-AP1-EB-01
640869005	ARK-AP1PZ-1
640869006	ARK-AP1PZ-2
640869007	ARK-AP1-FD-01
640869008	ARK-AP1PZ-4
640869009	ARK-AP1-FB-02
640869010	ARK-AP1PZ-3
640869011	ARK-AP1PZ-8
640869012	ARK-AP1PZ-5
640869013	ARK-AP1-EB-02
640869014	ARK-AP1PZ-7
640869015	ARK-AP1PZ-10
640869016	ARK-AP1PZ-11
640869017	ARK-AP1-FD-02
640869018	ARK-AP1PZ-9
1205545076	Method Blank (MB)
1205545077	Laboratory Control Sample (LCS)
1205545078	640869001(ARK-AP1GWA-1) Sample Duplicate (DUP)
1205545079	640869003(ARK-AP1GWA-2) Sample Duplicate (DUP)
1205545080	640869001(ARK-AP1GWA-1) Post Spike (PS)
1205545081	640869003(ARK-AP1GWA-2) Post Spike (PS)

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

## **Data Summary:**

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

#### **Technical Information**

#### **Sample Dilutions**

The following samples 1205545078 (ARK-AP1GWA-1DUP), 1205545080 (ARK-AP1GWA-1PS), 640869001 (ARK-AP1GWA-1), 640869005 (ARK-AP1PZ-1), 640869006 (ARK-AP1PZ-2), 640869007 (ARK-AP1-FD-01), 640869008 (ARK-AP1PZ-4), 640869010 (ARK-AP1PZ-3), 640869011 (ARK-AP1PZ-8), 640869012 (ARK-AP1PZ-5), 640869014 (ARK-AP1PZ-7), 640869015 (ARK-AP1PZ-10), 640869016 (ARK-AP1PZ-11), 640869017 (ARK-AP1-FD-02) and 640869018 (ARK-AP1PZ-9) were diluted because target analyte concentrations exceeded the calibration range. Samples 1205545078 (ARK-AP1GWA-1DUP), 1205545080 (ARK-AP1GWA-1PS), 640869001 (ARK-AP1GWA-1), 640869005 (ARK-AP1PZ-1), 640869006 (ARK-AP1PZ-2), 640869007 (ARK-AP1-FD-01), 640869008 (ARK-AP1PZ-4), 640869010 (ARK-AP1PZ-3), 640869011 (ARK-AP1PZ-8), 640869012 (ARK-AP1PZ-5), 640869014 (ARK-AP1PZ-7), 640869015 (ARK-AP1PZ-10), 640869016 (ARK-AP1PZ-10), 640869016 (ARK-AP1PZ-9) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Amelata					64	0869				
Analyte	001	005	006	007	008	010	011	012	014	015

Chloride	5X	10X	2X	2X	5X	5X	2X	5X	5X	20X
Fluoride	1X	1X	2X	2X	5X	5X	2X	5X	5X	1X
Sulfate	5X	10X	50X	100X	200X	100X	100X	200X	100X	20X

Analyta	640869					
Analyte	016	017	018			
Chloride	1X	1X	40X			
Sulfate	5X	200X	40X			

#### **Miscellaneous Information**

#### **Manual Integrations**

Sample 640869004 (ARK-AP1-EB-01) was manually integrated to correctly position the baseline as set in the calibration standards.

<u>Product:</u> Solids, Total Dissolved <u>Analytical Method:</u> SM 2540C <u>Analytical Procedure:</u> GL-GC-E-001 REV# 21 <u>Analytical Batch:</u> 2507350

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
640869001	ARK-AP1GWA-1
640869002	ARK-AP1-FB-01
640869003	ARK-AP1GWA-2
1205544189	Method Blank (MB)
1205544190	Laboratory Control Sample (LCS)
1205544191	640698013(NonSDG) Sample Duplicate (DUP)

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

#### **Data Summary:**

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

**Product: Solids, Total Dissolved Analytical Method:** SM 2540C **Analytical Procedure:** GL-GC-E-001 REV# 21 **Analytical Batch:** 2507357

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
640869004	ARK-AP1-EB-01
640869005	ARK-AP1PZ-1

640869006	ARK-AP1PZ-2
640869007	ARK-AP1-FD-01
640869008	ARK-AP1PZ-4
640869009	ARK-AP1-FB-02
640869010	ARK-AP1PZ-3
640869011	ARK-AP1PZ-8
640869012	ARK-AP1PZ-5
640869013	ARK-AP1-EB-02
640869014	ARK-AP1PZ-7
1205544194	Method Blank (MB)
1205544195	Laboratory Control Sample (LCS)
1205544196	640683001(NonSDG) Sample Duplicate (DUP)

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

#### **Data Summary:**

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

#### **Miscellaneous Information**

#### **Additional Comments**

A TDS meter was used to check the samples for interference prior to analysis. 640869006 (ARK-AP1PZ-2), 640869007 (ARK-AP1-FD-01), 640869008 (ARK-AP1PZ-4), 640869010 (ARK-AP1PZ-3), 640869011 (ARK-AP1PZ-8), 640869012 (ARK-AP1PZ-5) and 640869014 (ARK-AP1PZ-7).

**Product: Solids, Total Dissolved** <u>Analytical Method:</u> SM 2540C <u>Analytical Procedure:</u> GL-GC-E-001 REV# 21 <u>Analytical Batch:</u> 2508295

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
640869015	ARK-AP1PZ-10
640869016	ARK-AP1PZ-11
640869017	ARK-AP1-FD-02
640869018	ARK-AP1PZ-9
1205545877	Method Blank (MB)
1205545878	Laboratory Control Sample (LCS)
1205545882	641034002(NonSDG) Sample Duplicate (DUP)

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

#### **Data Summary:**

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

### **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.

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UEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407	Phone: (843) 556-8171 Fav: (843) 766_1178	(Fill in the number of containers for each tool		N (	,8M ,J	Mercury (74 Metals Al, K a, Fe, Mn ((	N.										Snorth.	City		7 IDADT [V]	L 1 Mo	W[]	2	Vasal		Please provide (	below regarding concerns. (i.e.: of site collected			
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	)	Sample Analysis Requested <sup>(5)</sup>				Alkalinity ( TDS (SM V TDS (SM V	. >						< >	< >	< ×	X	Normal:	LVIN	ONI T		IV: Cus	Easterr		=Filter, <b>P</b> =	ddad - 1 <sub>0</sub> ,		beryllin	T		
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	GEL Project Manager: Erin Trent		Should this	sample be	(If considered	es, please supp otopic info.)	si											Fav	Selo	BA Ada	For	Sample Collection Time Zone: [X] Eastern	ie, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite filtered.	nt, <b>SL</b> =Sludg	eacu (i.e. 8 <i>260B - 3, 6010B/7470A - 1</i> ). Acid, <b>HX =</b> Hexane, ST = Sodium Thiosulfate 1f no recentrative is addad - 10000 6.242411-1-1	Other	01= (i.e.: misc.	Desc		
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175569434 5_Coolers		eorgia Power	Project/Site Name: Plant Arkwright Ash Pond 1	Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308	ohn Myer; Dylan Quintal	69807 Sample ID * For composites - indicate start and stop date time	ARK-AP1GWA-1	ARK-AP1-FB-01	ARK-AP1GWA-2	ARK-AP1-EB-01	ARK-AP1PZ-1	ARK-AP1PZ-2	ARK-AP1-FD-01	ARK-AP1PZ-4	ARK-AP1-FB-02	ARK-AP1PZ-3		(Signed) Print Name	V JOHNMYEr			> For sample shipping and delivery details, see Sa 1.) Chain of Custody Number = Client Determined	<ol> <li>QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSI</li> <li>Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.</li> </ol>	<ol> <li>Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, WE=Water, ML=Misc Liquid, SO=Soil, SD=Soil, SD=Soil, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal</li> <li>Sample Analysis Requested: Analytical method requested (i.e. 85608.60108/74703) and number of control and solid Master of Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal</li> </ol>	6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic	7.) KNOWN OR POSSIBLE HAZARDS	Hg= Mercury Se= Selenium	Ag= Silver MR= Misc. RCRA metals		
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Inppring and defivery details, see Sample Receipt & Review form (SRR.)       Important Review form (SRR.)       Important Review (RR.)       Important (Review (RR.))       Importing (Review (RR.))       Important (Review (RR.))	3	3 1		I	/	EX	5	Idditional	Remar	.2:			2					1	
by Number = Client Determined          Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Duplicate Sample, G = Grab, C = Composite         Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Duplicate Sample, G = Grab, C = Composite         Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Duplicate Sample, G = Grab, C = Composite         N=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Na         W=Drinking Water, GW=Groundwater, SW=Surface Water, WL=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Na         W=Drinking Water, GW=Groundwater, SW=South ML=Misc R, ML         MF=Misc. RCA metals       Listed Waste       DT=Other/ Unknown         Reserved       Mater Site R       Listed Waste       OT=Other/ Unknown         Reserved       Mise. RCRA metals       Consolve       F/K,P and U-listed wastes.)       Discription:         MR= Miso. RCRA metals       TSCA Regulated       Maste code(s):       Description:       Description:	> For sample shipping and delivery details, see Sample Re	leceipt & Review form	(SRR.)				ample Co	llection	Time Zo	ne: [X	uy: Cu l Easte	n []	al Inta Pacific			2	Cooler Temp:	mp: < °C	
or liquid matrices, indicate with a - Y - for yes the sample was field filtered.         W=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, WL=Mise Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Na         Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).         Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).         Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).         Requested: Analytical method requested (i.e. 8260B - 3, 6010B/7470A - 1).         Re H = Hydrookhoric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank.         Z POSSIBLE HAZARDS       Characteristic Hazards       Listed Waste         R = Flammable/Tgnitable       LW=Listed Waste       OT=Other / Unknown         R = Selenium       RE = Reactive       R-K,P and U-Listed wastes.)       (i.e.: High/low PH, asbestos, beryllinm, irritants, other         MR = Misc. RCA metals       ISCA Regulated       Maste code(s):       Description:         MR = Misc. RCA metals       ISCA Regulated       Methor       Description:	<ol> <li>Chain of Custody Number = Client Determined</li> <li>OC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate</li> </ol>	ate, <b>EB</b> = Equipment Blank,	MS = Matrix S <sub>I</sub>	oike Sample	, MSD = N	fatrix Spik	e Duplicate S	ample, G =	Grab. C =	Compos				-				L J Ottor.	
Ww=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, W=Water, W=Water, ML=Mise Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Na.         Requested:       Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).         Requested:       Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).         Requested:       Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).         Requested:       Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).         Requested:       Analytical Material for the formation of	3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the same	nple was field filtered or - N	<ul> <li>for sample was</li> </ul>	not field f	ltered.					radinas	2								
with a standard of a standard for each (i.e. 8260B - 3, 6010B 7470A - 1).         with a standard for each (i.e. 8260B - 3, 6010B 7470A - 1).         R 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         R Description       Characteristic Hazards       Listed Waste       Other       Other / Unknown         Hg= Mercury       RL = Flammable/Ignitable       LW= Listed Waste       Other / Unknown       Other / Unknown         Age Silver       Co = Corrosive       Waste code(s):       Wastes.)       (i.e.: High/low PH, asbestos, beryllium, irritants, other misc. health hazards, etc.)         Age Silver       TSCA Regulated       Description:       Description:         MR = Misc. RCRA metals       FL Berloychlorinated       Description:	<ol> <li>Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface 1 5.) Sample Analysis Requested: Analysis Requested:</li></ol>	Water, WW=Waste Water,	W=Water, ML	=Mise Liqu	id, SO=Soi	l, SD=Sed	ment, SL=SI	udge, SS=S	olid Waste	, <b>0</b> =0il, 1	'=Filter, I	=Wipe, I	=Urine, I	'=Fecal, 1	V=Nasal				
Result       Restormed and the second and	6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Soc 6.)	oottub//4/0A) and number odium Hydroxide SA = Sulf	of containers pr	ovided for	each (i.e. 8.	260B - 3, 6	010B/7470A	-1).											
FL = Flammable/Ignitable     LW= Listed Waste     OT= Other / Unknown       Hg= Mercury     FL = Flammable/Ignitable     LW= Listed Waste     OT= Other / Unknown       Hg= Mercury     CO = Corrosive     (F,K,P and U-listed wastes.)     (i.e.: High/low pH, asbestos, beryllium, irritants, other       Se= Selenium     Ag= Silver     TSCA Regulated     Description:       MR= Misc. RCRA metals     PCB = Polychlorinated     Description:	7) KNOWN OR POSSIBLE HAZARDS Charact	cteristic Hazards	Listed V	Vaste	veld, HA =	Hexane, S		Thiosulfate, ther	If no pres	ervative is	added = 1	eave field	blank		Ĩ				
Ag= Silver TSCA Regulated MR= Mise. RCRA metals PCB = Polychlorinated biphenyls	Hg= Mercury Se= Selenium	lammable/Ignitable Jorrosive eactive	LW=Lis (F,K,P a) Waste co	sted Was nd U-list de(s):	e ed waste.	) ('s	0 <u></u>	T= Other e.: High/ isc. health	/ Unkno low pH, h hazard	wn asbesto s, etc.)	; beryll	ium, irr	tants, c	ther	beld beld con of s	use provu ow regard cerns. (i. ite colleci	ting han ting han e.: Orig ted from	r teuse provude any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from. odd matrices, etc.)	posal Spe tc.)
er (mandra	Ag= Silver MR= Misc. RCRA metals	Regulated Polychlorinated hinhenvls																20.70	a 1
		erfundio					1												

C	lient: GPCC				SAMPLE RECEIPT & REVIEW FORM 640869 SDG/AR/COC/Work Order:
R	eceived By: QG	_			Date Received: 0 1123
	Carrier and Tracking Number				Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other
Su	spected Hazard Information	1	Yes	No	*If NetCounts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A).	Shipped as a DOT Hazardous?				Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes No
B)	Did the client designate the samples are to be		1	1	COC potation or radioactive stickers on containers equal client designation.
C)	Did the RSO classify the samples as loactive?			- 12	Maximum Net Counts Observed* (Observed Counts - Area Background Counts):
D)	Did the client designate samples are hazardous	?	T	1	COC notation or hazard labels on containers equal client designation.
	Did the RSO identify possible hazards?			I	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
	Sample Receipt Criteria	Yes			2 Comments/Qualifiers (Required for Non-Conforming Items)
ı	Shipping containers received intact and scaled?	1	1		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	1			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$ ?*	/	/	1	Preservation Method: We tee Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 2 2
4	Daily check performed and passed on IR temperature gun?	1	ALC: LAN		Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable):
	Sample containers intact and sealed?	1		K	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	1	1	1	Sample ID's and Containers Affected:
	Do any samples require Volatile Analysis?		and the second second	1	If Pg/servation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes No NA(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes No NA(If unknown, select No) Are liquid VOA vials free of headspace? Yes No NA Sample ID's and containers affected:
	Samples received within holding time?	1		1	ID's and tests affected:
	Sample ID's on COC match ID's on bottles?	1		1	ID's and containers affected:
	Date & time on COC match date & time on bottles?	/	/	~	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
1	Number of containers received match number indicated on COC?	/		1	Circle Applicable: No container count on COC Other (describe)
0	Are sample containers identifiable as DEL provided by use of GEL labels? COC form is properly signed in	1			Circle Applicable: Not relinquished Other (describe)
r	elinquished/received sections? ents (Use Continuation Form if needed):				Circle Applicable: Not relinquished Other (describe)

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	SC000122024-04
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
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	T104704235-23-21
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
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List of current GEL Certifications as of 23 October 2023



a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

gel.com

June 30, 2023

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

Re: Arkwright CCR Groundwater Compliance AP1 Work Order: 625986

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 14, 2023. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. Georgia Power EQuIS Database Manager requested for the correction of the sample IDs by removing the dates. These updates ensure the sample nomenclature is consistent on final PDF & EDD and successful upload to database.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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.

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. 4504.

Sincerely,

Und Johnson

Anna Johnson for Erin Trent 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: 625986 GEL Work Order: 625986

### The Qualifiers in this report are defined as follows:

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

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

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

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

CungJohnson

Reviewed by

# Certificate of Analysis

			Report Date:	June 30, 2023
Company : Address :	Georgia Power Company, Southern Company 241 Ralph McGill Blvd NE, Bin 10160			
	Atlanta, Georgia 30308			
Contact:	Joju Abraham			
Project:	Arkwright CCR Groundwater ComplianceAP1			
Client Sample ID:	ARK-AP1PZ-6	Project:	GPCC00100	
Sample ID:	625986001	Client ID:	GPCC001	
Matrix:	WG			
Collect Date:	13-JUN-23 15:52			
Receive Date:	14-JUN-23			
Collector:	Client			

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Field Data												
Client collected Field	pH "As Receiv	/ed"										
Field pH	•	5.33			SU			EOS1	06/13/23	1552	2443847	1
Ion Chromatography												
EPA 300.0 Anions Lic	uid "As Recei	ved"										
Chloride	1	7.77	0.335	1.00	mg/L		5	JLD1	06/14/23	2231	2444191	2
Fluoride	U	ND	0.165	0.500	mg/L		5					
Sulfate		2480	26.6	80.0	mg/L		200	JLD1	06/15/23	1330	2444191	3
Mercury Analysis-CV	AA											
7470 Cold Vapor Mer	cury, Liquid "A	As Received"										
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	06/16/23	1039	2444300	4
Metals Analysis-ICP-I	MS											
SW846 3005A/6020B		"										
Boron		6.95	0.520	1.50	mg/L	1.00	100	PRB	06/17/23	2127	2443846	5
Calcium		460	8.00	20.0	mg/L	1.00	100					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	06/17/23	1936	2443846	6
Arsenic	J	0.00324	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0228	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00172	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		0.415	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00923	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00251 ND	0.00150	0.00500	mg/L	1.00	1					
Thallium Solida Apolysis	U	ND	0.000600	0.00200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved S	Solids "As Rec											
Total Dissolved Solids		3340	23.8	100	mg/L			CH6	06/15/23	1400	2444265	7
The following Prep M	ethods were pe	erformed:										
Method	Description	n		Analyst	Date	-	Гime	e Pr	ep Batch			
SW846 3005A	ICP-MS 3005	5A PREP		JD2	06/15/23	(	0720	24	43845			
SW846 7470A Prep	EPA 7470A N	Mercury Prep Liquid		EK1	06/15/23	1	1250	24	44297			

# Certificate of Analysis

			Report Date:	June 30, 2023
Company : Address :	Georgia Power Company, Southern Company 241 Ralph McGill Blvd NE, Bin 10160			
	Atlanta, Georgia 30308			
Contact:	Joju Abraham			
Project:	Arkwright CCR Groundwater ComplianceAP1			
Client Sample ID:	ARK-AP1PZ-6	Project:	GPCC00100	
Sample ID:	625986001	Client ID:	GPCC001	

Parameter	Qualifier Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
The following Anal	ytical Methods were performed:							
Method	Description				Analys	st Comments		
1	SM 4500-H B/SW846 9040C, SM 2550B							
2	EPA 300.0							
3	EPA 300.0							
4	SW846 7470A							
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

# QC Summary

Report Date: June 30, 2023

Page 1 of 8

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

Workorder: 625986

**Contact:** 

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	6 Range Anlst	Date Time
Ion Chromatography Batch 2444191								
QC1205433470 625884001 DUP Chloride		2.67	2.70	mg/L	1.22		(0%-20%) JLD1	06/15/23 03:18
Fluoride	J	0.0909 J	0.0803	mg/L	12.4 ^		(+/-0.100)	
Sulfate		88.1	89.8	mg/L	1.91		(0%-20%)	06/15/23 07:01
QC1205433469 LCS Chloride	5.00		4.85	mg/L		97.1	(90%-110%)	06/15/23 02:46
Fluoride	2.50		2.49	mg/L		99.5	(90%-110%)	
Sulfate	10.0		9.93	mg/L		99.3	(90%-110%)	
QC1205433468 MB Chloride		U	ND	mg/L				06/15/23 02:15
Fluoride		U	ND	mg/L				
Sulfate		U	ND	mg/L				
QC1205433471 625884001 PS Chloride	5.00	2.67	7.39	mg/L		94.4	(90%-110%)	06/15/23 03:50
Fluoride	2.50 J	0.0909	2.38	mg/L		91.8	(90%-110%)	
Sulfate	10.0	8.81	18.9	mg/L		101	(90%-110%)	06/15/23 07:33

		$\mathcal{L}\mathcal{L}\mathcal{D}$	ummu	у					
Workorder: 625986									Page 2 of 8
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS Batch 2443846									
QC1205432938 LCS									
Antimony	0.0500		0.0478	mg/L		95.7	(80%-120%)	PRB	06/17/23 19:33
·				-					
	0.0500		0.0406				(000) 1000()		
Arsenic	0.0500		0.0486	mg/L		97.1	(80%-120%)		
Barium	0.0500		0.0496	mg/L		99.3	(80%-120%)		
Beryllium	0.0500		0.0581	mg/L		116	(80%-120%)		
Derymum	0.0500		0.0501	iiig/L		110	(80%-120%)		
Boron	0.100		0.0984	mg/L		98.4	(80%-120%)		06/17/23 21:23
Cadmium	0.0500		0.0495	mg/L		98.9	(80%-120%)		06/17/23 19:33
				U			. ,		
			• • • •	~					
Calcium	2.00		2.00	mg/L		99.8	(80%-120%)		06/17/23 21:23
Chromium	0.0500		0.0478	mg/L		95.7	(80%-120%)		06/17/23 19:33
Cobalt	0.0500		0.0492	mg/L		98.4	(80%-120%)		
Cobart	0.0500		0.04)2	iiig/L		20.4	(00/0-120/0)		
Lead	0.0500		0.0489	mg/L		97.8	(80%-120%)		
Lithium	0.0500		0.0533	mg/L		107	(80%-120%)		
				U U			. ,		
	0.0500		0.0402	æ		00.6	(000) 1000()		
Molybdenum	0.0500		0.0493	mg/L		98.6	(80%-120%)		
Selenium	0.0500		0.0472	mg/L		94.4	(80%-120%)		
Thallium	0.0500		0.0469	mg/L		93.7	(80%-120%)		
. munitum	0.0500		0.0702	iiig/L		13.1	(00/0-120/0)		
QC1205432937 MB Antimony		U	ND	ma/I					06/17/23 19:29
Antimony		U	ND	mg/L					00/17/25 19:29

Workorder: 625986				~	-						Pag	ge 3 of 8
Parmname	NON	M	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst		Time
Metals Analysis - ICPMS Batch 2443846												
Arsenic				U	ND	mg/L				PRB	06/17/2	23 19:29
Barium				U	ND	mg/L						
Beryllium				U	ND	mg/L						
Boron				U	ND	mg/L					06/17/2	/23 21:20
Cadmium				U	ND	mg/L					06/17/2	/23 19:29
Calcium				U	ND	mg/L					06/17/2	/23 21:20
Chromium				U	ND	mg/L					06/17/2	/23 19:29
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						
QC1205432939 625986001 MS Antimony	0.0500	U	ND		0.0503	mg/L		100	(75%-125%	ό)	06/17/2	/23 19:40
Arsenic	0.0500	J	0.00324		0.0553	mg/L		104	(75%-125%	ό)		

Workordon (2500)		2	•	2					
Workorder: 625986									Page 4 of 8
Parmname Metals Analysis - ICPMS Batch 2443846	NOM	Sample Qual	QC	Units	RPD% RI	REC%	Berne Range Ai	nlst	Date Time
Barium	0.0500	0.0228	0.0707	mg/L	9	95.8	(75%-125%)	PRB	06/17/23 19:40
Beryllium	0.0500	0.00172	0.0628	mg/L		122	(75%-125%)		
Boron	0.100	6.95	7.09	mg/L	1	N/A	(75%-125%)		06/17/23 21:31
Cadmium	0.0500 U	ND	0.0505	mg/L	-	101	(75%-125%)		06/17/23 19:40
Calcium	2.00	460	483	mg/L	1	N/A	(75%-125%)		06/17/23 21:31
Chromium	0.0500 U	ND	0.0488	mg/L		97	(75%-125%)		06/17/23 19:40
Cobalt	0.0500	0.415	0.466	mg/L	1	N/A	(75%-125%)		
Lead	0.0500 U	ND	0.0479	mg/L	9	95.7	(75%-125%)		
Lithium	0.0500 J	0.00923	0.0675	mg/L		116	(75%-125%)		
Molybdenum	0.0500 U	ND	0.0543	mg/L		108	(75%-125%)		
Selenium	0.0500 J	0.00251	0.0607	mg/L	- - -	116	(75%-125%)		
Thallium	0.0500 U	ND	0.0471	mg/L	9	94.1	(75%-125%)		
QC1205432940 625986001 MSD Antimony	0.0500 U	ND	0.0511	mg/L	1.61 1	102	(0%-20%)		06/17/23 19:43
Arsenic	0.0500 J	0.00324	0.0559	mg/L	0.988 1	105	(0%-20%)		
Barium	0.0500	0.0228	0.0702	mg/L	0.749 94	94.7	(0%-20%)		

Workorder: 625986		2		Dogo 5 of 9				
Parmname	NOM	Sample	Qual QC	Units	RPD%	REC%	Range Anlst	Page 5 of 8 Date Time
Metals Analysis - ICPMS       Batch     2443846		Sampic			<u></u>	<u>NEC /0</u>	Källge Allist	Date Thire
Beryllium	0.0500	0.00172	0.0627	mg/L	0.132	122	(0%-20%) PRB	<b>B</b> 06/17/23 19:43
Boron	0.100	6.95	6.62	mg/L	6.82	N/A	(0%-20%)	06/17/23 21:34
Cadmium	0.0500 U	J ND	0.0501	mg/L	0.774	100	(0%-20%)	06/17/23 19:43
Calcium	2.00	460	455	mg/L	6.05	N/A	(0%-20%)	06/17/23 21:34
Chromium	0.0500 U	J ND	0.0485	mg/L	0.516	96.5	(0%-20%)	06/17/23 19:43
Cobalt	0.0500	0.415	0.460	mg/L	1.25	N/A	(0%-20%)	
Lead	0.0500 U	J ND	0.0473	mg/L	1.25	94.5	(0%-20%)	
Lithium	0.0500 J	0.00923	0.0668	mg/L	1.04	115	(0%-20%)	
Molybdenum	0.0500 U	J ND	0.0535	mg/L	1.46	107	(0%-20%)	
Selenium	0.0500 J	0.00251	0.0596	mg/L	1.75	114	(0%-20%)	
Thallium	0.0500 U	J ND	0.0461	mg/L	2.07	92.2	(0%-20%)	
QC1205432941 625986001 SDILT Antimony	U	J ND	U ND	ug/L	N/A		(0%-20%)	06/17/23 19:51
Arsenic	1	3.24	U ND	ug/L	N/A		(0%-20%)	
Barium		22.8	4.32	ug/L	5.44		(0%-20%)	
Beryllium		1.72	J 0.296	ug/L	13.9		(0%-20%)	

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# QC Summary

Workorder: 625986		~	-	•						Page 6 of 8
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range A	Anlst	Date Time
Metals Analysis - ICPMS Batch 2443846										
Boron		69.5	J	10.7	ug/L	22.8		(0%-20%)	PRB	06/17/23 21:38
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		06/17/23 19:51
Calcium		4600		950	ug/L	3.2		(0%-20%)		06/17/23 21:38
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		06/17/23 19:51
Cobalt		415		84.0	ug/L	1.19		(0%-20%)		
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Lithium	J	9.23	U	ND	ug/L	N/A		(0%-20%)		
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Selenium	J	2.51	U	ND	ug/L	N/A		(0%-20%)		
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Metals Analysis-Mercury Batch 2444300 ———										
QC1205433645 625831006 DUP Mercury	U	ND	U	ND	mg/L	N/A			JP2	06/16/23 10:06
QC1205433644 LCS Mercury	0.00200			0.00210	mg/L		105	(80%-120%)		06/16/23 09:48
QC1205433643 MB Mercury			U	ND	mg/L					06/16/23 09:46

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### QC Summary

Workorder: 625986									Page 7 of 8
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range A	Anlst	Date Time
Metals Analysis-MercuryBatch2444300									
QC1205433646 625831006 MS Mercury	0.00200 U	ND	0.00183	mg/L		89.3	(75%-125%)	JP2	06/16/23 10:08
QC1205433647 625831006 SDILT Mercury	U	ND U	ND	ug/L	N/A		(0%-10%)		06/16/23 10:09
Solids Analysis Batch 2444265									
QC1205433571 625877002 DUP Total Dissolved Solids	U	ND U	ND	mg/L	N/A			CH6	06/15/23 14:00
QC1205433567 LCS Total Dissolved Solids	300		302	mg/L		101	(95%-105%)		06/15/23 14:00
QC1205433566 MB Total Dissolved Solids		U	ND	mg/L					06/15/23 14:00

#### 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
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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# QC Summary

Workor	der: 62598	6										Pag	e 8 of 8
Parmna	me		NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
NJ	Consult Case	Narrative, Data	Summary package	e, or Project	Manager	concerning	this qualifi	er					
Е	General Cher	istryConcent	ration of the target	analyte exce	eds the ir	istrument ca	libration ra	ange					
Q	One or more	uality control c	criteria have not be	en met. Refe	r to the aj	oplicable na	rrative or I	DER.					
FB	invalid for rej	orting to regula	t quantifiable conc atory agencies	entrations in	field blar	nks received	with these	samples. D	Data associate	ed with the	blank are	deemed	
N1	See case narra	tive											
Y	Other specific	qualifiers were	e required to proper	rly define the	e results.	Consult case	narrative.						
R	Per section 9. purposes.	3.4.1 of Metho	d 1664 Revision B	, due to matr	ix spike r	ecovery issu	les, this res	sult may not	be reported of	or used for	regulatory	o complia	ince
В	The target and	lyte was detect	ed in the associate	d blank.									
e	5-day BOD reporting pur		how more than 30	% difference	between	high and lo	w values. 7	The data is q	ualified per t	he method	and can be	e used for	r
J	See case narra	tive for an expl	anation										
^ The R five tim RL is us * Indica	elative Percent es (5X) the consed to evaluate ates that a Qual	Difference (RP tract required d the DUP result. ty Control para	ts do not apply whe D) obtained from the etection limit (RL) meter was not with values listed are the	the sample du ). In cases wh nin specificat	uplicate ( nere eithe ions.	(DUP) is evan the sample	duated aga or duplica	inst the acce te value is lo	eptance criter	ia when the	e sample i	s greater	

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 #: 625986

### **Metals**

**Product: Determination of Metals by ICP-MS Analytical Method:** SW846 3005A/6020B **Analytical Procedure:** GL-MA-E-014 REV# 35 **Analytical Batch:** 2443846

**Preparation Method:** SW846 3005A **Preparation Procedure:** GL-MA-E-006 REV# 14 **Preparation Batch:** 2443845

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

<u>GEL Sample ID#</u>	Client Sample Identification
625986001	ARK-AP1PZ-6
1205432937	Method Blank (MB)ICP-MS
1205432938	Laboratory Control Sample (LCS)
1205432941	625986001(ARK-AP1PZ-6L) Serial Dilution (SD)
1205432939	625986001(ARK-AP1PZ-6S) Matrix Spike (MS)
1205432940	625986001(ARK-AP1PZ-6SD) Matrix Spike Duplicate (MSD)

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

#### **Data Summary:**

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

#### **Calibration Information**

#### **ICSA/ICSAB Statement**

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

#### **Technical Information**

#### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Amalaria	625986							
Analyte	001							
Boron	100X							
Calcium	100X							

<u>Product:</u> Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer <u>Analytical Method:</u> SW846 7470A <u>Analytical Procedure:</u> GL-MA-E-010 REV# 39 <u>Analytical Batch:</u> 2444300

**Preparation Method:** SW846 7470A Prep **Preparation Procedure:** GL-MA-E-010 REV# 39 **Preparation Batch:** 2444297

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

<u>GEL Sample ID#</u>	Client Sample Identification
625986001	ARK-AP1PZ-6
1205433643	Method Blank (MB)CVAA
1205433644	Laboratory Control Sample (LCS)
1205433647	625831006(NonSDGL) Serial Dilution (SD)
1205433645	625831006(NonSDGD) Sample Duplicate (DUP)
1205433646	625831006(NonSDGS) Matrix Spike (MS)

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

#### **Data Summary:**

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

### **General Chemistry**

Product: Ion Chromatography Analytical Method: EPA 300.0 Analytical Procedure: GL-GC-E-086 REV# 31 Analytical Batch: 2444191

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
625986001	ARK-AP1PZ-6
1205433468	Method Blank (MB)
1205433469	Laboratory Control Sample (LCS)
1205433470	625884001(NonSDG) Sample Duplicate (DUP)
1205433471	625884001(NonSDG) Post Spike (PS)

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

#### **Data Summary:**

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

#### **Technical Information**

#### **Sample Dilutions**

The following samples 1205433470 (Non SDG 625884001DUP), 1205433471 (Non SDG 625884001PS) and 625986001 (ARK-AP1PZ-6) were diluted because target analyte concentrations exceeded the calibration range. Sample 625986001 (ARK-AP1PZ-6) was diluted to minimize matrix effects on instrument performance. Sample 625986001 (ARK-AP1PZ-6) was diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Amalaria	625986
Analyte	001
Chloride	5X
Fluoride	5X
Sulfate	200X

**Product: Solids, Total Dissolved** <u>Analytical Method:</u> SM 2540C <u>Analytical Procedure:</u> GL-GC-E-001 REV# 20 <u>Analytical Batch:</u> 2444265

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
625986001	ARK-AP1PZ-6
1205433566	Method Blank (MB)
1205433567	Laboratory Control Sample (LCS)
1205433571	625877002(NonSDG) Sample Duplicate (DUP)

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

#### **Data Summary:**

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

#### **Miscellaneous Information**

#### **Additional Comments**

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 625986001 (ARK-AP1PZ-6). A reduced aliquot was used due to limited volume. The client did not provide an entire 1 liter aliquot. 1205433571 (Non SDG 625877002DUP).

#### **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.

2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171	6-1178	(Fill in the number of containers for each test)	Z < Preservative Type (6)		709) u	E Fo ad ad ASSMT-2023S1 ) ad ad ad ASSMT-2023S1 )	pH: 5.33							-1	: (Subject to Surcharge)		[X] Level 2 [ ] Level 3 [ ] Level 4		[] No Cooler Temp:C	[ ] Central [ ] Mountain [ ] Other:					Please nrovide any additional details	below regarding handling and/or disposal	concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)			
2040 Savage Road Charleston, SC 294 Phone: (843) 556-8	Fax: (843) 766-1178	nber of	IN			Mercury Metals A	x					1100 1100 1000 1000		1	Specify:				] Yes [	Central			N=Nasal		d	99	of			
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ay I Spe	Trent	Sample.	S.	tainer	10000	Total number	12.59		10.99				199.98		TAT Requested:	Fax Results: [ ] Yes	Select Deliverable: [ ] C of A [ ] QC Summary	Additional Remarks.	For Lab Receiving Use Only: Custody Seal Intact? [	Sample Collection Time Zone : [X] Eastern	1	0 = 0	SS=Soli		ulfate, If	OT= Other / Unknown	(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)	ption:	ALL ALL	
LLC bloasse al Re	Erin	•••	I this	e be ered:	ards .	10 nwonX (7) 326H sldizzoq	OT				1				T	Fax R	Select	Additi	For L	ollecti		s Sample	Sludge,	04 - 1).	m Thiosu Other	OT= (	(i.e.: H misc. 1	Description:		
<b>Badio</b>	ager:	A STATE	Should this	sample be considered:	bbjà	yes, please suj isotopic info.)			0	7						0	2			nple C		uplicate	ent, SL=	0 <i>B/</i> 747(	= Sodiur					
	GEL Work Order Number: GEL Project Manager: Erin Trent	Phone # (937-344-6533)	Fax:	.30308	Send Results To: jabraham@southernco.com EDD@stantec.com brian.steele@stantec.com edgar.smith@stantec.com	*Date Collected *Time *T	6/13/2023 1552 N N		PSK //		643-23				Chain of Custody Signatures	Date Received by (signed) Print Name Date	643-23 1. St. 1 (X0, 14, 23)0(	2 / 4	3			<ol> <li>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. Vield Etheord: Exclining matrices indicate with a - V. for use the semale use field fibred arc. N. for semale use not field Etheord.</li> </ol>	4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, W=Water, W=Water, M=Misc Liquid, SO=Soli, SD=Sodiment, 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. 82608, 60108/7470A) and number of containers provided for each (i.e. 82608 - 3, 60108/7470A - 1).	6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank 7.) KNOWN OR POSSIBLE HAZARDS [Characteristic Hazards ] It isted Waste	_ ]。	CO = Corrosive $(F,K,P \text{ and } U\text{-listed wastes.})$ RE = Reactive Waste code(s):	TSCA Reculated	PCB = Polychlorinated	biphenyls
Project #	PONumber:	Chent Name: Georgia Power	Project/Site Name: Plant Arkwright Ash Pond 1	Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308	Collected By: Bryan Pennell	52000 Sample ID * For composites - indicate start and stop date/time	A ARK-AP1PZ-6-20230613								CH	Relinquished By (Signed) Print Name	1 AUN BRYAN PERNEUL	2	3	> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)	<ol> <li>Chain of Custody Number = Client Determined</li> </ol>	<ol> <li>QC Codes: N = Normal Sample, TB = Trip Blank, FD = Fi.</li> <li>Find Efficiency Env Renear environs (indicate with a - V - for -</li> </ol>	4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SN	5.) Sample Analysis Requested: Analytical method requested ()	6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Ac 7.) KNOWN OR POSSIBLE HAZARDS		s	Ba = Barium Se= Selenium Cd = Cadmium Ao= Silver	Cr = Chromium MR= Misc. RCRA metals	Pb = Lead

ent: CPCC elved By: SNS Carrier and Tracking Number pected Hazard Information Shipped as a DOT Hazardous? Did the client designate the samples are to be elved as radioactive? Did the RSO classify the samples as lonctive? Did the client designate samples are hazardous?	No No	Date	AR/COC/Work Order: C02598(e) C02598 Received: Creis Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other AQS98403522-1C 3511-1C Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
Carrier and Tracking Number pected Hazard Information inipped as a DOT Hazardous? Did the client designate the samples are to be eived as radioactive? Did the RSO classify the samples as ioactive?	No.	<u>3</u>	FedBx Express FedEx Ground UPS Field Services Courier Other AQSQ8403522-1C 3511-1C
Chipped as a DOT Hazardous? Did the client designate the samples are to be bived as radioactive? Did the RSO classify the samples as ioactive?	ž	*If N	tet Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
Did the client designate the samples are to be elved as radioactive? Did the RSO classify the samples as ioactive?	Δ	Haza	
Did the client designate the samples are to be elved as radioactive? Did the RSO classify the samples as ioactive?	X		ard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes No
Did the RSO classify the samples as ioactive?			C notation or radioactive stickers on containers equal client designation.
	X	Max	imum Net Counts Observed* (Observed Counts - Area Background Counts): CPMy mR/Hr Classified as: Rad 1 Rad 2 Rad 3
	X	1	C notation or hazard labels on containers equal client designation. or B is yes, select Hazards below.
Did the RSO identify possible hazards?	X		PCB's Flammable Foreign Soil RCRA Asbestos Berymum Oniea;
Sample Receipt Criteria	NA	Å	Comments/Qualifiers (Required for Non-Conforming Items)
Shipping containers received intact and sealed?			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
Chain of custody documents included with shipment?			Descention Method Wet Tee Jee Packs Dry ice None Other:
Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$ ?*			*ail temperature Device Serial #: <u>IR1-23</u>
Daily check performed and passed on IR temperature gun?			Secondary Temperature Device Serial # (If Applicable): Circle Applicable: Scals broken Damaged container Leaking container Other (describe)
5 Sample containers intact and scaled? Samples requiring chemical preservation			Sample ID's and Containers Affected:
at proper pH?			If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? YesNoNA (If yes, take to VOA Freezer)
7 Do any samples require Volatile Analysis?		Ń	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?			ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?		5 M - 5 E	ID's and containers affected: Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
10 Date & time on COC match date & time on bottles?	<u>Y</u>		Circle Applicable: No dates on containers No times on containers COC massing and Circle Applicable: No container count on COC Other (describe)
11 Number of containers received match number indicated on COC?	X		
12       Are sample containers identifiable as GEL provided by use of GEL labels?         13       COC form is properly signed in relinquished/received sections?         Comments (Use Continuation Form if needed):			Circle Applicable: Not relinquished Other (describe)

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
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	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
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List of current GEL Certifications as of 30 June 2023



a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

gel.com

July 12, 2023

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

Re: Arkwright CCR Groundwater Compliance AP1 Work Order: 625987

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 14, 2023. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. Georgia Power EQuIS Database Manager requested GEL Project Manager correct the sample IDs by removing the dates. These updates ensure the sample nomenclature is consistent on final PDF & EDD and successful upload to database,

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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.

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. 4504.

Sincerely,

Erin & Trent

Erin Trent Project Manager

Purchase Order: GPC82177-0005 Enclosures



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### Certificate of Analysis Report for

#### GPCC001 Georgia Power Company

#### Client SDG: 625987 GEL Work Order: 625987

#### 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, Erin Trent.

Reviewed by Erin & Irent

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# **Certificate of Analysis**

Company : Address :	Company	wer Company McGill Blvd N		0								
	Atlanta, Ge	orgia 30308						Repo	ort Date:	July 12	, 2023	
Contact:	Joju Abrah	am										
Project:	Arkwright	CCR Groundy	vater Compli	anceAP1								
Client Samp Sample ID: Matrix: Collect Dat Receive Da Collector:	62598 WG e: 13-Л	JN-23 JN-23					oject: ient ID:	GPCC GPCC				
Parameter	Qualifie	r Result U	ncertainty	MDC	TPU	RL	Units	PF D	F Analys	t Date Time	e Batch	Mtd.
Radium-228 <i>Radium-226+Ra</i> Radium-226+228 Su <b>Rad Radium-226</b>	iquid "As Receiv U adium-228 Calcu m	ed" 1.68 lation "See Pa 3.69	+/-1.46 urent Product +/-1.65	2.39 ts" 2.39	+/-1.53 +/-1.77	3.00	pCi/L pCi/L		JE1 1 LXB3	06/23/23 1509 07/06/23 1001		
Radium-226	26, Liquid "As R	2.01	+/-0.768	0.560	+/-0.901	1.00	pCi/L		LXP1	06/27/23 0810	2445887	3
The following An		s were perfor	med									
Method	Description											
1	EPA 904.0/SW84	6 9320 Modifie	d									
2	Calculation											
3	EPA 903.1 Modif	ied										
Surrogate/Trace	r Recovery	Test						Batch ID	Recover	y% Accepta	able Limi	ts
Barium-133 Tr	acer	GFPC Ra2	28, Liquid "A	As Received"				2445900	74	.4 (15%	-125%)	
Notes: The MDC is a s TPU and Cour			ated at the 9	5% confidenc	e level (1.96-sigm	a).						
Column heade		s follows:										
DF: Dilution F				Method								
DL: Detection				rep Factor								
Lc/LC: Critica	l Level		RL: R	eporting Lim	t							

MDA: Minimum Detectable Activity MDC: Minimum Detectable Concentration

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### QC Summary

			Q	CSI	ummary	(	,			
Client :	Georgia Power Com 241 Ralph McGill B				-		I	Report Da	ate: July 12, 2023 Page 1 of 2	
	Atlanta, Georgia									
Contact:	Joju Abraham									
Workorder:	625987									
Parmname		NOM	Sample (	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
<b>Rad Gas Flow</b>										
Batch	2445900									
QC1205436474	625716001 DUP									
Radium-228		U	0.410	U	1.25	pCi/L	, 0		N/A JE1	06/23/2315:09
		Uncert:	+/-0.944		+/-1.03					
		TPU:	+/-0.950		+/-1.08					
QC1205436475	LCS	00.4			00.0	0.4		111	(750/ 1050/) IE1	26/22/2215.00
Radium-228		80.4			88.8 +/-4.76	pCi/L		111	(75%-125%) JE1	06/23/2315:09
		Uncert: TPU:			+/-4.76 +/-23.1					
QC1205436473	MB	110.			+/-23.1					
Radium-228	MD			U	0.213	pCi/L			JE1	06/23/2315:09
Kaululli 220		Uncert:		U	+/-0.991	P~			• <u>-</u> -	00/20/2010.05
		TPU:			+/-0.992					
Rad Ra-226										
Batch	2445887									
QC1205436429	625648001 DUP									
Radium-226		U	0.580		1.33	pCi/L	78.8		(0% - 100%) LXP	1 06/27/2309:24
		Uncert:	+/-0.575		+/-0.739	1				
		TPU:	+/-0.582		+/-0.781					
QC1205436431	LCS									
Radium-226		26.4			26.5	pCi/L		100	(75%-125%) LXP	1 06/27/2309:24
		Uncert:			+/-2.78					
		TPU:			+/-5.69					
QC1205436428	MB				0.006	0.4			LVD	
Radium-226		Uncert:		U	0.326 +/-0.394	pCi/L			LXP	1 06/27/2309:24
		Uncert: TPU:			+/-0.394 +/-0.400					
QC1205436430	625648001 MS	IPU:			+/-0.400					
Radium-226	023040001 1015	127 U	0.580		117	pCi/L		92.1	(75%-125%) LXP	1 06/27/2309:24
Rudium 220		Uncert:	+/-0.575		+/-12.9	P 01/2		/=	(15/0 125/0) 2	1 00/27/2009.2.
		TPU:	+/-0.582		+/-27.6					
		11 01								

#### 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

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# QC Summary

			20 Dai	J							
Worko	order: 625987							Page 2	2 of 2		
Parmna	ame	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 recover	ery is low								
h	Preparation or preservat	ion holding time was exce	eeded								
R	Sample results are reject	ted									
^	RPD of sample and dup	licate evaluated using +/-I	RL. Concentrations are	<5X the R	L. Qualif	ier Not App	licable for F	Radiochemi	stry.		
N/A	RPD or %Recovery lim	its do not apply.									
ND	Analyte concentration is	s not detected above the de	etection limit								
М	M if above MDC and le	ss than LLD									
NJ	Consult Case Narrative,	Data Summary package,	or Project Manager con	cerning thi	s qualifier						
FA	Failed analysis.										
UJ	Gamma Spectroscopy	Uncertain identification									
Q	One or more quality cor	ntrol criteria have not been	met. Refer to the appli	cable narra	tive or DI	ER.					
Κ	Analyte present. Report	ed value may be biased hi	gh. Actual value is expe	ected to be	lower.						
UL	Not considered detected	l. The associated number i	s the reported concentra	tion, whic	h may be i	naccurate d	ue to a low	bias.			
L	Analyte present. Report	ed value may be biased lo	w. Actual value is expec	cted to be l	nigher.						
N1	See case narrative										
Y	Other specific qualifiers	were required to properly	define the results. Con	sult case n	arrative.						
**	Analyte is a Tracer com	pound									
М	REMP Result > MDC/C	CL and < RDL									
J	See case narrative for an	n explanation									
** Ind ^ The	ndicates that spike recover licates analyte is a surroga Relative Percent Differen mes (5X) the contract req	ate/tracer compound. ace (RPD) obtained from the	he sample duplicate (D	UP) is eval	luated aga	inst the acc	eptence crite	ria when th	ie sample i	is greater	

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.

#### Radiochemistry Technical Case Narrative Georgia Power Company SDG #: 625987

Product: Radium-226+Radium-228 Calculation Analytical Method: Calculation Analytical Procedure: GL-RAD-D-003 REV# 45 Analytical Batch: 2448609

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

<u>GEL Sample ID#</u>	Client Sample Identification
625987001	ARK-AP1PZ-6

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: GFPC Ra228, Liquid Analytical Method:** EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5 **Analytical Batch:** 2445900

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

<u>GEL Sample ID#</u>	Client Sample Identification
625987001	ARK-AP1PZ-6
1205436473	Method Blank (MB)
1205436474	625716001(NonSDG) Sample Duplicate (DUP)
1205436475	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.

#### **Preparation Information**

#### **Homogenous Matrix**

Sample 1205436474 (Non SDG 625716001DUP) was non-homogenous matrix. particles and debris 1205436474 (Non SDG 625716001DUP).

Product: Lucas Cell, Ra226, Liquid Analytical Method: EPA 903.1 Modified Analytical Procedure: GL-RAD-A-008 REV# 15 Analytical Batch: 2445887

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
625987001	ARK-AP1PZ-6
1205436428	Method Blank (MB)
1205436429	625648001(NonSDG) Sample Duplicate (DUP)
1205436430	625648001(NonSDG) Matrix Spike (MS)
1205436431	Laboratory Control Sample (LCS)

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

#### **Data Summary:**

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

#### **Miscellaneous Information**

#### **Additional Comments**

The matrix spike, 1205436430 (Non SDG 625648001MS), 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.

	L	Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)	< Preservative Type (6)		Comments	( lask_code: AKK-CCK- ASSMT-2023S1 )	pH: 5.33				11-20					(Subject to Surcharge)		el 2 [] Level 3 [] Level 4		Cooler Temp:C	[ ] Mountain [ ] Other:					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.)
2040 Savage Road Charleston, SC 29407	FII0IIE: (043) 766-1178 Fax: (843) 766-1178	of contain	IN			Metals A Na, Fe, M												[X] Level 2		[ ] No	12622.76		-			Yease pr velow reg oncerns. f site col
2040 Savage Road Charleston, SC 294	. (043) . 843) 7(	nber c	IN	~	121	Mercury	x									Specify:		vel 1			[ ] Central		N=Nasa		ſ	1 9 9
2040 S Charle	FIIUIDE Fax: (8	he nur	IN	pqı	nD 822	RAD 226-	×											[] level 1		For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes	[]		=Fecal,			ther
		ill in t	IN	Δ	App. I' (80)	Aetals (602)	x							1	NR.	Rush:				Intaci	[] Pacific		Jrine, F		ank	Other OT= Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
88		<sup>(5)</sup> (Fi			Fl, Sulf	,CI) anoinA (300.0 Rev	х									- Z		Select Deliverable: [ ] C of A [ ] QC Summary		ty Seal	[ ] P		ipe, U=I		field bl	ı, irrit
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ialty An		e Ana	IN	(B)	Z09) (J	( .qqA) 3A										ueste	[ ] Ye	rable:	marks	siving	e Zon	ab, C = (	Waste,		to prese	Unkno v pH, i azard
V   Spec	Trent	ample	s.	tainer	r of con	ədmun latoT	9	Linus Sala								TAT Requested:	sults:	Delive	nal Re	b Rec	n Tim	<b>G</b> = Gr	S=Solid		fate, If r	ther /   igh/lov ealth h otion:
Laboratories LLC themistry   Radiochemistry   Radiochemi	GEL Project Manager: Erin Trent	S	A. Carl	be red:		to nwonX (7) See Hazian	OT									TA	Fax Results: [ ] Yes	elect I	Additional Remarks.	or La	Sample Collection Time Zone : [X] Eastern	Sample,	ludge, S	1 - 1).	Thiosul	Other / Unknown OT= Other / Unknown (i.e.: High/low pH, asbest misc. health hazards, etc.) Description:
SS L	yuru		Should this	sample be considered:	bhà	yes, please su isotopic info.)	0				~	1		Dec.co.				Q	V	F	ple Co	plicate 5	l, SL=S	B/7470A	Sodium	
	Mana		S	~ 5	JI)	Radioactive	z					L						3			Sam	pike Du	sedimen	3, 6010.	c, ST =	_
and and	oject					Sample Matrix <sup>(4)</sup>	GW										Date	2			A STATE	Aatrix S	il, SD=S	260B -	- Hexan	ss.)
	EL P	(			com	Field Filtered <sup>(3)</sup> ]				$\sim$	01	2.5					D	J.			A Street	1SD = N	rea. SO=So	h (i.e. 8	d, HX =	l waste
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c	5	37-34			EDD@ c.com	QC Code	z			5	1	0			Constanting of the second		Print Name	$\bigcirc$				Spike Sa	as not n L=Misc	provided	= Asco	Waste Jisted and U code(s)
GEL Belicom		Phone # (937-344-6533)	Fax:		Send Results To: jabraham@southernco.com EDD@stantec.com brian.steele@stantec.com edgar.smith@stantec.com	*Time Collected (Military) (hhmm)	1552											6			(SRR.)	MS = Matrix S	<ul> <li>Ior sample wi</li> <li>W=Water, MI</li> </ul>	of containers p	uric Acid, AA	Listed Waste LW= Listed Waste (F,K,P and U-listed wastes.) Waste code(s):
	mber				n@sout edgar.s	ccted (y)	6/13/2023									tures	by (sig	11	2		form	Blank,	or - N.	number	A = Sulf	2 Die
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	k Ord				s To: ja @stante	*Da (r										tody ?	Re	1	2	ю	pt & h	B = Equ	vas licio er, WW	)B/7470	n Hydro	teristic H. ammable/l orrosive eactive Polychlori biphenyls
	GEL Work Order Number:			~	I Result											of Cus		6-13-23			e Recei	olicate, E	sampic v face Wat	0B, 601(	= Sodiu	Characteristic Hazards FL = Flammable/Ignitable CO = Corrosive RE = Reactive <b>TSCA Regulated</b> PCB = Polychlorinated biphenyls
	GE		_	3A 3030	Seno bria	late/time										Chain of Custody Signatures	Date	64			e Sampl	= Field Dur	tor yes the	ed (i.e. <b>826</b>	c Acid, SH	R C H C H C
175569434		sorgia Power	Project/Site Name: Plant Arkwright Ash Pond I	Address: 241 Ralph McGill Blvd SE, Atlanta, GA 30308	3ryan Pennell	Sample ID For composites - indicate start and stop date/time	ARK-AP1PZ-6-20230613										y (Signed) Print Name	BRYAN PERNEW			> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)	<ol> <li>Chain of Custody Number = Client Determined</li> <li>Chain of Custody Number = Client Determined</li> <li>OC Codes: N = Normal Sample, <b>TB</b> = Trip Blank, <b>FD</b> = Field Duplicate, <b>EB</b> = Equipment Blank, <b>MS</b> = Matrix Spike Sample, <b>MS</b> = Matrix Spike Duplicate Sample, <b>G</b> = Grab, <b>C</b> = Composite</li> </ol>	<ol> <li>Fried Fruitered: For inquire matrices, indicate with a - Y - lot yes the sample was field intered or - N - for sample was not field intered.</li> <li>Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WU=Water, WL=Mise Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal</li> </ol>	5.) Sample Analysis Requested: Analytical method requested (i.e. 82608, 60108/7470A) and number of containers provided for each (i.e. 82608 - 3, 60108/7470A - 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) <u>KCRA Metals</u> <u>RCRA Metals</u> As = Arsenic <u>Hg= Mercury</u> Ba = Barium Se= Selenium Cd = Cadmium Ag= Silver Cr = Chromium MR= Misc. RCRA metals Pb = Lead
Project # Gen Quote #: COC Number <sup>(1)</sup> .	PO Number:	Client Name: Georgia Power	Project/Site Nan	Adress: 241 Ra		<sub>юз иоз</sub> * 5987 Re	v1										Relinquished By (Signed)	Lappe 1	2	3	> For sample sh	<ol> <li>Chain of Custody</li> <li>QC Codes: N = 1</li> </ol>	<ol> <li>Field Fillered: Fi</li> <li>Matrix Codes: D<sup>1</sup></li> </ol>	5.) Sample Analysis	6.) Preservative Typ	7) ANDWN OK RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead

Project # 175569434		GEL	Lab	-aboratories LL(	ries L	LC					2040 Sa	2040 Savage Road	ad	
ABL Quote #: CPC Number (1).		gel.com	Chemistry	ger.com I Chemistry   Radiochemistry   Radiobioassay   Specialty Analytics Chain of Custody and Analytical Dominect	stry   Radiobi	Dagray   Spe	cialty Analy	lics			Charles	Charleston, SC 29407	9407	
	CEI Work Order Number		U CUSIO	UN AIIU A	In a lucal	Canhau		and the second second	新たった	Salar Assess	Phone:	Phone: (843) 556-8171	5-8171	
red number: Client Name: Georgia Power	ATT TAUNA INTER PARTY AND	Phone # (937-344-6533)	14-6533)	GEL Froject Manager: Ern Trem	anager: D	mart mr	o A malue	Andreis Documented (5)		(ESII in the	Fax: (8 <sup>2</sup>	Fax: (843) 766-1178	178	result in the method of the second
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Actress: 241 Ralph McGill Blvd SE, Atlanta, GA 30308	. 30308				considered:		1.507.040					'8J	(00)	
Collected By: Bryan Pennell	Send Results To: jabraham@southernco.com EDD@stantec.com brian.steele@stantec.com edgar.smith@stantec.com	thernco.com EDD smith@stantec.con	@ stantec.co n	E	Aldq	strds		) (30C	(DC)	I.qqA	1045 - C1	ו' ג' ו	700) (	Comments
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1 776- BRYAN PENNEN	6-13-23 1 211	1 ((	レート	500	Y O Se	Select Deliverable: [ ] C of A	rable: [ ]		[ ] QC Summary	mmary	[ ] level 1		[X] Level 2	[] Level 3 [] Level 4
20	2				Ac	Additional Remarks.	emarks:							
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> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)	Sample Receipt & Review form	(SRR.)			Sample Collection Time Zone : [X] Eastern	lection Tin	te Zone :	[X] Eas	に言い	[] Pacific	[]C	[] Central	[] Mountain	ntain [] Other:
1.) Chain of Custody Number = Client Determined			-											
2.) QC COGGS: N = NOTHAL SAMPIC, 1B = 117D BLARK, FU = FICIO DUDICARC, EB = Equipment Blank, NS = Matrix Spike Sampic, NS = Matrix Spike Duplicate Sampic, G = Grab, C = Composite [3, 1] Field Filtered: For liquid matrices indicate with a - Y - for ves the sample was field filtered or - N - for estimation was not field filtered.	icid Duplicate, $EB = Equipment Blank$ , r ves the sample was field filtered or $- N$	MD = Maurix Spike	Sample, MSL field filtered	e Matrix Spir	ce Duplicate Se	implie, G = Gr	ab, C = Con	posite						
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Mise Liquid, SD=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Freed, N=Nasal	W=Surface Water, WW=Waste Water,	W=Water, ML=Mis	c Liquid, SO	=Soil, SD=Sec	iment, SL=Slu	dge, SS=Solic	l Waste, O=	Oil, F=Filte	, 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).	(i.e. 8260B, 6010B/7470A) and number	of containers provid	ed for each (i	.c. 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	cid, SH = Sodium Hydroxide, SA = Sul	uric Acid, AA = Asc	orbic Acid, F	<b>HX</b> = Hexane, S	ST = Sodium T	hiosulfate, If	no preservat	ve is added	= leave fiel	d blank				
7) KNOWN OR POSSIBLE HAZARUS RCRA Metals As = Arsenic Hg= Mercury Ba = Barium Se= Selenium Cd = Cadmium Ag= Silver Cr = Chromium MR= Misc. RCRA metals Pb = Lead	Characteristic Hazards FL = Flammable/Ignitable CO = Corrosive RE = Reactive TSCA Regulated PCB = Polychlorinated biphenyls	Listed Waste LW= Listed Waste (F,K,P and U-listed wastes.) Waste code(s):	te I Waste U-listed w (s):	astes.)		<b>Other</b> <b>OT</b> = Other / Unknown ( <i>i.e.</i> : High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) <b>Description:</b>	Unknown w pH, asb iazards, e	estos, ber (c.)	yllium, ir	ritants, c	ther	Plea belo conc conc conc	Please provi below regarc concerns. (i of site collec	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.)

lier	GPCC			SDG	MAR/COC/Work Order: (02598(0 (02598)
	ved By: SNS			Dat	e Received: 6/14/23
	Carrier and Tracking Number			2	FedEx Express FedEx Ground UPS Field Services Courier Other A9398403522-10 3511-10
usp	ected Hazard Information	Yes	Ňo	+1f1	Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
			χ	Haz	ard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? YesNo
) D	d the client designate the samples are to be		X	co	C notation or radioactive stickers on containers equal client designation.
) D	red as radioactive?		X	Ma	ximum Net Counts Observed* (Observed Counts - Area Background Counts): CPMy mR/Hr Classified as: Rad 1 Rad 2 Rad 3
	active? id the client designate samples are hazardous?		Ŷ		C notation or hazard labels on containers equal client designation.
	id the RSO identify possible hazards?		X	 	O or B is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
	Sample Receipt Criteria	Yes	N	ž	Comments/Qualifiers (Required for Non-Conforming Items) Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
1	Shipping containers received intact and sealed?	X			Circle Applicable: Client contacted and provided COC COC created upon receipt
2	Chain of custody documents included with shipment?	X			Preservation Method. Wei Tee-Ice Packs Dry ice None Other:
3	Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$ ?*	X			*all temperatures are recorded in Ceisius
4	Daily check performed and passed on IR temperature gun?	Ą			Secondary Temperature Device Serial # (If Applicable): Circle Applicable: Seals broken Damaged container Leaking container Cither (describe)
5	Sample containers intact and sealed? Samples requiring chemical preservation				Sample ID's and Containers Affected:
6	at proper pH?	$\wedge$			If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No)
7	Do any samples require Volatile Analysis?	I		Ŷ	Are liquid VOA vials free of headspace? Yes No NA Sample ID's and containers affected:
8	Samples received within holding time?	X		***	ID's and tests affected: ID's and containers affected:
9	Sample ID's on COC match ID's on bottles?	2	(I	κς. 5 τ	D's and containers affected: Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
1	on bottles?		Ŋ.		Circle Applicable: No container count on COC Other (describe)
1	Are sample containers identifiable as	_/		2. • . • .	
	GEL provided by use of GEL labels?	-ľ			Circle Applicable: Not relinquished Other (describe)
C	mments (Use Continuation Form if needed):	_¥	¥		

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State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
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	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
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	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

List of current GEL Certifications as of 12 July 2023



October 23, 2023

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

Re: Arkwright CCR Groundwater Compliance AP1 Work Order: 640870

Dear Joju Abraham:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 11, 2023. 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):

Laboratory ID	Client ID	<u>Matrix</u>	<b>Date Collected</b>	Date Recieved
640870001	ARK-AP1GWA-1	Ground Water	09/10/23 13:45	11/10/23 15:28
640870002	ARK-AP1-FB-01	Ground Water	09/10/23 14:05	11/10/23 15:28
640870003	ARK-AP1GWA-2	Ground Water	09/10/23 14:30	11/10/23 15:28
640870004	ARK-AP1-EB-01	Ground Water	09/10/23 15:00	11/10/23 15:28
640870005	ARK-AP1PZ-1	Ground Water	09/10/23 16:20	11/10/23 15:28
640870006	ARK-AP1PZ-2	Ground Water	09/10/23 17:00	11/10/23 15:28
640870007	ARK-AP1-FD-01	Ground Water	09/10/23 00:00	11/10/23 15:28
640870008	ARK-AP1PZ-4	Ground Water	10/10/23 09:10	11/10/23 15:28
640870009	ARK-AP1-FB-02	Ground Water	10/10/23 09:30	11/10/23 15:28
640870010	ARK-AP1PZ-3	Ground Water	10/10/23 09:30	11/10/23 15:28
640870011	ARK-AP1PZ-8	Ground Water	10/10/23 11:55	11/10/23 15:28
640870012	ARK-AP1PZ-5	Ground Water	10/10/23 11:20	11/10/23 15:28
640870013	ARK-AP1-EB-02	Ground Water	10/10/23 12:10	11/10/23 15:28
640870014	ARK-AP1PZ-7	Ground Water	10/10/23 13:50	11/10/23 15:28
640870015	ARK-AP1PZ-10	Ground Water	10/10/23 14:20	11/10/23 15:28
640870016	ARK-AP1PZ-11	Ground Water	10/10/23 16:15	11/10/23 15:28



640870017	ARK-AP1-FD-02	Ground Water	10/10/23 00:00	11/10/23 15:28
640870018	ARK-AP1PZ-9	Ground Water	11/10/23 08:20	11/10/23 15:28

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**

Method	<u>Run Date ID</u>
Calculation	23-OCT-2023
EPA 903.1 Modified	23-OCT-2023
EPA 904.0/SW846 9320 Modified	16-OCT-2023

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. 4504.

Sincerely,

mande len Amanda Turner for

Amanda Turner for Erin Trent Project Manager

Purchase Order: GPC82177-0005 Enclosures

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### Certificate of Analysis Report for

#### GPCC001 Georgia Power Company

#### Client SDG: 640870 GEL Work Order: 640870

#### 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
- Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD. U

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, Erin Trent.

Reviewed by

Ananda Terr

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# **Certificate of Analysis**

Company : Address :	Georgia Powe Company 241 Ralph Me			0								
	Atlanta, Geor	gia 30308						Rep	ort Date:	October 23	, 2023	
Contact:	Joju Abrahan	1										
Project:	Arkwright CO	CR Groundw	ater Complia	anceAP1								_
Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	640870 WG 09-OCT	Г-23					oject: ient ID:		C00100 C001			
Parameter	Qualifier	Result U	ncertainty	MDC	TPU	RL	Units	PF D	<b>)F</b> Analys	st Date Time	e Batch	Mtd.
Rad Gas Flow Prope GFPC Ra228, Liqu Radium-228 Radium-226+Radi	uid "As Received	2.41	+/-1.09 erent Product	1.37 's"	+/-1.25	3.00	pCi/L		JE1	10/16/23 0816	2507338	1
Radium-226+228 Sum		4.31	+/-1.35	1.37	+/-1.51		pCi/L		NXL1	10/23/23 1409	2508821	2
Rad Radium-226 Lucas Cell, Ra226,	Liquid "As Doo	ainad"										
Radium-226	, Liquia As Keco	1.90	+/-0.801	0.580	+/-0.848	1.00	pCi/L		LXP1	10/23/23 0818	2508813	3
The following Analy	utical Mathada 1	voro porfor	mod				1					
	escription	vere periori	licu									
1 E	EPA 904.0/SW846	9320 Modifie	d									
	Calculation		-									
3 E	PA 903.1 Modified	1										
Surrogate/Tracer R	Recovery	Гest						Batch ID	) Recover	ry% Accept:	able Limi	ts
Barium-133 Trace	er	GFPC Ra2	28, Liquid "A	As Received"				2507338	66	.4 (15%	-125%)	
Column headers	ng Uncertainty are defined as	IDC. are calcula	ated at the 9.	5% confiden	nce level (1.96-sign	na).						
DF: Dilution Fac				Method								
DL: Detection Li				ep Factor	•,							
Lc/LC: Critical L	Level		KL: K	eporting Lin	nt							

TPU: Total Propagated Uncertainty MDA: Minimum Detectable Activity MDC: Minimum Detectable Concentration

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# **Certificate of Analysis**

Company : Address :	Georgia Powe Company 241 Ralph Mc			Э								
	Atlanta, Georg	gia 30308						Rej	port Date:	Octob	per 23, 2023	
Contact:	Joju Abraham	i										
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1								
Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID: ARK-Al 6408700 WQ 09-OCT 11-OCT Client	Г-23					oject: ient ID:		C00100 C001			
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF	DF Analyst	Date	Time Batch	Mtd.
Rad Gas Flow Propor												
GFPC Ra228, Liquid Radium-228	id "As Received" U	1.12	+/-1.18	1.96	+/-1.21	3.00	pCi/L		JE1	10/16/23	0816 2507338	2 1
Radium-226+Radiur					1/-1.21	5.00	pere		JL1	10/10/25	0010 2007000	, 1
Radium-226+228 Sum	<i>n-220 Careman</i>	2.23	+/-1.36	1.96	+/-1.40		pCi/L		NXL1	10/23/23	1409 2508821	1 2
Rad Radium-226							L					
Lucas Cell, Ra226, 1	Liquid "As Rece	vived"										
Radium-226		1.11	+/-0.667	0.704	+/-0.688	1.00	pCi/L		LXP1	10/23/23	0818 2508813	3 3
The following Analyti	ical Methods w	vere perforn	ned									
	escription	<b>*</b>										
1 EPA	A 904.0/SW846 9	320 Modified										
2 Cal	lculation											
3 EP/	A 903.1 Modified	i										
Surrogate/Tracer Re	covery T	ſest						Batch II	D Recovery	y% Ac	cceptable Lim	its
Barium-133 Tracer		GFPC Ra22	28, Liquid "A	s Received"				2507338	8 69.	1	(15%-125%)	
Notes: The MDC is a samp TPU and Counting			ted at the 9:	5% confide	ence level (1.96-sigma)	.).						
Column headers an DF: Dilution Facto DL: Detection Lim Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or nit evel Detectable Act	tivity	PF: Pre RL: Re TPU: 7	Method ep Factor eporting Lin Total Propa	mit agated Uncertainty							

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0								
	Atlanta, Georg	gia 30308						Rep	oort Date:	Octoł	ber 23, 2023	
Contact:	Joju Abraham	1										
Project:	Arkwright CC	CR Groundw:	ater Compli:	anceAP1								
Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID: ARK-A 6408700 WG 09-OCT 11-OCT Client	Г-23					oject: ient ID:		C00100 C001			
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF 1	DF Analyst	Date	Time Batch	Mtd.
Rad Gas Flow Propol GFPC Ra228, Liqui												I
Radium-228	U	0.754	+/-1.07	1.84	+/-1.09	3.00	pCi/L		JE1	10/16/23	3 0816 250733	8 1
Radium-226+Radiu	ım-228 Calculat	tion "See Par	ent Product	<i>s</i> ″								
Radium-226+228 Sum		6.78	+/-1.83	1.84	+/-2.05		pCi/L		NXL1	10/23/23	3 1409 250882	.1 2
Rad Radium-226												
Lucas Cell, Ra226, J	Liquid "As Rece		1 1 10	. <i></i>	(1.52)	1 00	<b>a</b> . 4		. 1/01	: 0 /20 /00		
Radium-226		6.03	+/-1.48	0.547	+/-1.73	1.00	pCi/L		LXPI	10/23/23	3 0818 250881	3 3
The following Analyt		vere perform	ıed									
Method De	escription											
1 EP.	PA 904.0/SW846 9	€ 320 Modified										
2 Cal	lculation											
3 EP.	PA 903.1 Modified	1										
Surrogate/Tracer Re	ecovery 7	Гest						Batch II	D Recovery	y% A(	cceptable Lim	nits
Barium-133 Tracer	c	GFPC Ra22	8, Liquid "A	s Received"				2507338	8 72.	4	(15%-125%)	
Notes: The MDC is a sam TPU and Countin			ted at the 9	5% confidend	ce level (1.96-sigma	.).						
Column headers a DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or mit evel Detectable Act	tivity	PF: Pro RL: Re	Method ep Factor eporting Limi Total Propaga	it ated Uncertainty							

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0									
	Atlanta, Georg	gia 30308						Rep	ort Date:	Octo	ber 23, 2	2023	
Contact:	Joju Abraham	1											
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1									
Client Sample ID: Sample ID: Matrix: Collect Date: Receive Date: Collector:	-	Ф1-ЕВ-01 004 Г-23	-				oject: ient ID:		200100 2001				
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF I	DF Analyst	Date	• Time	Batch N	Atd.
Rad Gas Flow Propor GFPC Ra228, Liqui													
Radium-228	U	1.24	+/-1.22	2.01	+/-1.26	3.00	pCi/L		JE1	10/16/23	3 0816	2507338	1
Radium-226+Radiu	m-228 Calculat	tion "See Pai	rent Products	s″									
Radium-226+228 Sum	U	1.38	+/-1.25	2.01	+/-1.29		pCi/L		NXL1	10/23/23	3 1409 2	2508821	2
Rad Radium-226													
Lucas Cell, Ra226, I	Liquid "As Rece U		10.250	0.500	. / 0.257	1.00	-C:/I			10/02/0	2 0952	2500012	2
Radium-226	-	0.130	+/-0.256	0.508	+/-0.257	1.00	pCi/L		LAPI	10/23/23	3 0852 2	2508813	3
The following Analyti		vere perforn	ned										
	escription												
	A 904.0/SW846 9	J320 Modified	i										
	lculation												
3 EP.	A 903.1 Modified	1											
Surrogate/Tracer Re	covery 7	Гest						Batch II	O Recovery	y% A	cceptab	le Limits	.s
Barium-133 Tracer		GFPC Ra22	28, Liquid "A	s Received"				2507338	69.4	.4	(15%-1	25%)	
<b>Notes:</b> The MDC is a sam TPU and Counting			ted at the 9:	5% confide	nce level (1.96-sigma	a).							
Column headers an DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or nit evel Detectable Act	etivity	PF: Pre RL: Re TPU: 7	Method ep Factor eporting Lin Total Propag	mit gated Uncertainty								

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# **Certificate of Analysis**

Company : Address :	Georgia Powe Company 241 Ralph Mc			)									
	Atlanta, Georg	gia 30308						Re	port Date:	Oct	tober 23, 2023		
Contact:	Joju Abraham	1							•				
Project:	Arkwright CC	CR Groundw	ater Complia	inceAP1									
Client Sample ID: Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID: ARK-A 6408700 WG 09-OCT 11-OCT Client	005 Г-23 Г-23					oject: ient ID:		C00100 C001				
Parameter	Qualifier	Result Un	ıcertainty	MDC	TPU	RL	Units	PF	DF Analyst	Dat	te Time Batc	h M	<u>ítd.</u>
Rad Gas Flow Propor GFPC Ra228, Liqui													
Radium-228	a As Neceiveu	2.01	+/-1.04	1.42	+/-1.16	3.00	pCi/L		JE1	10/16/	23 0816 25073	338	1
Radium-226+Radiu	ım-228 Calculat						r -					0	-
Radium-226+228 Sum		4.93	+/-1.43	1.42	+/-1.59		pCi/L		NXL1	10/23/2	23 1409 25088	321	2
Rad Radium-226													
Lucas Cell, Ra226,	Liquid "As Rece												
Radium-226		2.92	+/-0.983	0.494	+/-1.09	1.00	pCi/L		LXP1	10/23/2	23 0852 25088	,13	3
The following Analyt		vere perforr	ned										
	escription												
1 EP.	PA 904.0/SW846 9	€ 320 Modified	ł										
	lculation												
3 EP.	PA 903.1 Modified	l											
Surrogate/Tracer Re	ecovery T	ſest						Batch I	D Recovery	y%	Acceptable Li	mits	۱ <u> </u>
Barium-133 Tracer	ĩ	GFPC Ra22	28, Liquid "A	s Received"				250733	8 68.	6	(15%-125%	)	
Notes: The MDC is a sam TPU and Countin			ted at the 9:	5% confide	nce level (1.96-sig	;ma).							
Column headers a DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or mit evel Detectable Act	tivity	PF: Pre RL: Re TPU: T	Method ep Factor eporting Lir Total Propag	mit gated Uncertainty								

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0								
	Atlanta, Georg	gia 30308						Re	port Date:	October	23, 2023	ļ
Contact:	Joju Abraham	.1						-	L.			ļ
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1								I
Client Sample ID: Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID: ARK-A 6408700 WG 09-OCT 11-OCT Client	006 Г-23					oject: ient ID:		2C00100 2C001			
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF	DF Analyst	Date Ti	me Batch	Mtd.
Rad Gas Flow Propor GFPC Ra228, Liqui												I
Radium-228	U	1.39	+/-1.07	1.65	+/-1.13	3.00	pCi/L		JE1	10/16/23 08	316 2507338	, 1
Radium-226+Radiu	ım-228 Calculat	tion "See Par	ent Product	.s"			•					
Radium-226+228 Sum		7.40	+/-1.78	1.65	+/-2.05		pCi/L		NXL1	10/23/23 14	09 2508821	2
Rad Radium-226												
Lucas Cell, Ra226, 1	Liquid "As Rece											
Radium-226		6.01	+/-1.43	0.676	+/-1.71	1.00	pCi/L		LXP1	10/23/23 08	352 2508813	3
The following Analyt	ical Methods v	vere perforn	ied									
Method De	escription											
1 EP.	PA 904.0/SW846 9	9320 Modified										
2 Cal	lculation											
3 EP.	PA 903.1 Modified	1										
Surrogate/Tracer Re	ecovery 7	Гest						Batch I	D Recovery	y% Acce	ptable Limi	ts
Barium-133 Tracer	:	GFPC Ra22	8, Liquid "A	As Received"				250733	63.	8 (1:	5%-125%)	
Notes: The MDC is a sam TPU and Countin			ted at the 9	5% confidenc	e level (1.96-sigma)	.).						
Column headers an DF: Dilution Factor DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or mit evel Detectable Act	ctivity	PF: Pro RL: Re	Method rep Factor eporting Limi Total Propaga	it ated Uncertainty							

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

Company : Address :	Georgia Powe Company 241 Ralph Mc			0								
	Atlanta, Geor	gia 30308						Rej	port Date:	October	23, 2023	
Contact:	Joju Abraham	1										l
Project:	Arkwright CC	CR Groundw:	ater Compli:	anceAP1								l
Client Sample ID: Sample ID: Matrix: Collect Date: Receive Date: Collector:	-	Ф1-FD-01 007 Г-23					oject: ient ID:		C00100 C001			
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF 1	DF Analyst	Date T	ime Batch l	Mtd.
<b>Rad Gas Flow Propo</b> <i>GFPC Ra228, Liqui</i>												
Radium-228	U	1.66	+/-1.20	1.85	+/-1.28	3.00	pCi/L		JE1	10/16/23 05	816 2507338	1
Radium-226+Radiu	ım-228 Calculat	tion "See Par	ent Product	<i>s"</i>								
Radium-226+228 Sum		7.98	+/-2.05	1.85	+/-2.39		pCi/L		NXL1	10/23/23 14	409 2508821	2
Rad Radium-226												
Lucas Cell, Ra226, J	Liquid "As Rece		. 11.00	0.000	. / 2.02	1.00	0.4		I VD1	10/02/02 0	050 0500010	2
Radium-226		6.33	+/-1.66	0.996	+/-2.02	1.00	pCi/L		LXPI	10/23/23 08	852 2508813	3
The following Analyt		vere perform	ıed									
Method De	escription											
1 EP.	PA 904.0/SW846 9	€ 320 Modified										
2 Cal	lculation											
3 EP.	PA 903.1 Modified	1										
Surrogate/Tracer Re	ecovery 7	Гest						Batch II	D Recovery	y% Acc	eptable Limit	ts
Barium-133 Tracer	ť	GFPC Ra22	8, Liquid "A	As Received"				2507338	8 60.3	3 (1	5%-125%)	
<b>Notes:</b> The MDC is a sam TPU and Countin			ed at the 9	5% confidenc	ce level (1.96-sigma)	).						
Column headers a DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or mit evel Detectable Ac	tivity	PF: Pro RL: Re	Method rep Factor eporting Limi Total Propaga	it ated Uncertainty							

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0								
	Atlanta, Georg	gia 30308						Rep	ort Date:	October	23, 2023	
Contact:	Joju Abraham	n										
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1								
Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID: ARK-A 6408700 WG 10-OCT 11-OCT Client	0008 Г-23					oject: lent ID:		200100 2001			
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF D	<b>OF</b> Analyst	Date Ti	me Batch	Mtd.
Rad Gas Flow Propol GFPC Ra228, Liqui												
Radium-228	U	2.16	+/-1.68	2.70	+/-1.77	3.00	pCi/L		JE1	10/16/23 08	19 2507338	1
Radium-226+Radiu	m-228 Calcula	tion "See Par	ent Product	<i>s</i> "								
Radium-226+228 Sum		5.33	+/-1.96	2.70	+/-2.14		pCi/L		NXL1	10/23/23 14	09 2508821	2
Rad Radium-226												
Lucas Cell, Ra226,	Liquid "As Rece											
Radium-226		3.16	+/-1.01	0.481	+/-1.21	1.00	pCi/L		LXP1	10/23/23 08	52 2508813	3
The following Analyt	ical Methods v	vere perform	ied									
Method De	escription											
1 EP.	PA 904.0/SW846 9	9320 Modified										
2 Cal	lculation											
3 EP.	A 903.1 Modified	t										
Surrogate/Tracer Re	ecovery 7	Test						Batch ID	Recovery	y% Acce	ptable Limi	ts
Barium-133 Tracer		GFPC Ra22	8, Liquid "A	As Received"				2507338	62.	9 (15	5%-125%)	
<b>Notes:</b> The MDC is a sam TPU and Countin			ted at the 9	5% confidenc	ce level (1.96-sigma	L <b>).</b>						
Column headers a DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or nit evel Detectable Ac	ctivity	PF: Pr RL: Re TPU: 7	Method ep Factor eporting Limi Total Propaga	it ated Uncertainty							

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# **Certificate of Analysis**

Company : Address :	Georgia Powe Company 241 Ralph Mc			0								
	Atlanta, Georg	gia 30308						Rej	port Date:	October 2	3, 2023	
Contact:	Joju Abraham	1										
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1								l
Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	6408700 WQ 10-OCT 11-OCT Client	Г-23 Г-23					oject: lent ID:	GPC GPC	C00100 C001			
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF	DF Analyst	Date Tin	ne Batch	Mtd.
Rad Gas Flow Propor GFPC Ra228, Liqui												
Radium-228	a As Received	2.02	+/-1.05	1.43	+/-1.17	3.00	pCi/L		JE1	10/16/23 082	1 2507338	1
Radium-226+Radiu	um-228 Calculat				.,	0.00	Per-			10/10/20 002	1 2007022	
Radium-226+228 Sum		2.51	+/-1.13	1.43	+/-1.25		pCi/L		NXL1	10/23/23 140	9 2508821	2
Rad Radium-226 Lucas Cell, Ra226, I	Liquid "As Rece	eived"					*					
Radium-226	U	0.489	+/-0.437	0.573	+/-0.449	1.00	pCi/L		LXP1	10/23/23 085	2 2508813	3
The following Analyti	ical Methods w	vere perform	ned									
	escription	<b>*</b>										
1 EP.	PA 904.0/SW846 9	320 Modified										
2 Cal	lculation											
3 EP.	A 903.1 Modified	i										
Surrogate/Tracer Re	ecovery T	ſest						Batch II	D Recovery	y% Accep	table Limi	its
Barium-133 Tracer	:	GFPC Ra22	28, Liquid "A	s Received"	1			250733	8 68.0	6 (15)	%-125%)	
Notes: The MDC is a sam TPU and Counting	ple specific M	IDC.			ence level (1.96-sigma	l).						
Column headers an DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or nit evel Detectable Act	tivity	PF: Pre RL: Re TPU: 7	Method ep Factor eporting Lin Total Propa	imit agated Uncertainty							

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# **Certificate of Analysis**

Company : Address :	Georgia Powe Company 241 Ralph Mc			)								
	Atlanta, Georg	gia 30308						Rep	ort Date:	October 2	23, 2023	
Contact:	Joju Abraham	1										
Project:	Arkwright CC	CR Groundwa	ter Complia.	inceAP1								
Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	ID: ARK-Al 6408700 WG 10-OCT 11-OCT Client	010 Г-23					oject: lent ID:		C00100 C001			
Parameter	Qualifier	Result Unc	ertainty	MDC	TPU	RL	Units	PF I	<b>DF</b> Analyst	Date Tir	ne Batch M	Mtd.
Rad Gas Flow Propor												
<i>GFPC Ra228, Liqui</i> Radium-228	d "As Keceivea	3.12	+/-1.40	1.86	+/-1.61	3.00	pCi/L		JE1	10/16/23 081	21 2507338	1
Radium-226+Radium	m-228 Calculat				17-1.01	5.00	pere		JLI	10/10/23 002	1 2307330	1
Radium-226+228 Sum	m-220 Careman	12.5	+/-2.28	1.86	+/-2.99		pCi/L		NXL1	10/23/23 140	9 2508821	2
Rad Radium-226							r · ·					·
Lucas Cell, Ra226, I	Liquid "As Rece	vived"										
Radium-226		9.36	+/-1.80	0.761	+/-2.52	1.00	pCi/L		LXP1	10/23/23 085	52 2508813	3
The following Analyti	ical Me <u>thods w</u>	vere perform	ed									_
Method De	scription											
1 EP.	A 904.0/SW846 9	320 Modified										
2 Cal	lculation											
3 EP.	A 903.1 Modified	I										
Surrogate/Tracer Re	covery T	ſest						Batch II	) Recovery	y% Accer	otable Limit	ts
Barium-133 Tracer		GFPC Ra228	3, Liquid "A	s Received"				2507338	3 57.2	7 (15	%-125%)	
Notes: The MDC is a sam TPU and Counting			ed at the 9!	5% confiden	ce level (1.96-sigma)	).						
Column headers an DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or nit evel Detectable Act	tivity	PF: Pre RL: Re	Method ep Factor eporting Lim Fotal Propaga	it ated Uncertainty							

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# **Certificate of Analysis**

Company : Address :	Georgia Powe Company 241 Ralph Mo			)									
	Atlanta, Georgia 30308							Rep	ort Date:	Oct	ober 23,	2023	
Contact:	Joju Abraham												
Project:	Arkwright CO	CR Groundw	ater Complia	anceAP1									
Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:			oject: ient ID:		C00100 C001				-				
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF I	<b>DF</b> Analys	t Dat	<u>e Time</u>	Batch I	Mtd.
<b>Rad Gas Flow Propo</b> <i>GFPC Ra228, Liqui</i>													
Radium-228	a As Keceivea	1.84	+/-0.907	1.17	+/-1.02	3.00	pCi/L		JE1	10/16/2	23 0821	2507338	1
Radium-226+Radiu	m-228 Calcula				.,		r						-
Radium-226+228 Sum		3.27	+/-1.13	1.17	+/-1.27		pCi/L		NXL1	10/23/2	23 1409	2508821	2
Rad Radium-226 Lucas Cell, Ra226, 1	Liquid "As Rece	eived"											
Radium-226		1.44	+/-0.671	0.531	+/-0.748	1.00	pCi/L		LXP1	10/23/2	23 0852	2508813	3
The following Analyt	ical Methods v	vere perforn	ned										
	escription												
1 EP.	A 904.0/SW846 9	9320 Modified											
2 Cal	lculation												
3 EP.	A 903.1 Modified	1											
Surrogate/Tracer Re	ecovery 7	Fest						Batch II	Recover	у%	Accepta	ble Limit	S
Barium-133 Tracer		GFPC Ra22	8, Liquid "A	s Received"				2507338	5 71	.3	(15%-	125%)	
Notes: The MDC is a sam TPU and Countin			ted at the 9	5% confidenc	e level (1.96-sigma	).							
Column headers a DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or nit evel Detectable Ac	tivity	PF: Pro RL: Re	Method ep Factor eporting Limi Fotal Propaga	t ted Uncertainty								

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0								
I	Atlanta, Georg	gia 30308						Re	port Date:	Octo	ober 23, 2023	I
Contact:	Joju Abraham	1										I
Project:	Arkwright CC	CR Groundw	ater Compli:	anceAP1								I
Client Sample Sample ID: Matrix: Collect Date: Receive Date: Collector:	6408700 WG 10-OCT	012 Г-23					oject: ient ID:		C00100 C001			
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	<b>PF</b>	DF Analyst	Date	e Time Batch	Mtd.
<b>Rad Gas Flow Propo</b> <i>GFPC Ra228, Liqui</i>												
Radium-228	U	-0.394	+/-1.54	2.87	+/-1.54	3.00	pCi/L		JE1	10/16/23	23 0821 2507338	1
Radium-226+Radiu	ım-228 Calculat	ion "See Par	ent Product	<i>s''</i>								
Radium-226+228 Sum		4.50	+/-2.00	2.87	+/-2.27		pCi/L		NXL1	10/23/23	23 1409 2508821	2
Rad Radium-226	· · · / // A D											
Lucas Cell, Ra226, . Radium-226	Liquid "As Rece	eived" 4.50	+/-1.28	0.542	+/-1.66	1.00	pCi/L		T VD1	10/22/2	23 0927 2508813	2
				0.542	⊤/-1.00	1.00	pene		LALL	10/23/20	3 0727 2300013	3
The following Analyt		vere perform	ıed									
	escription											
	PA 904.0/SW846 9	320 Modified										
	alculation											
3 EP	PA 903.1 Modified	1										
Surrogate/Tracer Re	ecovery T	Test						Batch I	D Recovery	y% A	Acceptable Limi	ts
Barium-133 Tracer	r	GFPC Ra22	.8, Liquid "A	As Received"				2507338	8 59.	1	(15%-125%)	
Notes: The MDC is a sample specific MDC. TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).												
Column headers a DF: Dilution Facto DL: Detection Lir Lc/LC: Critical Le MDA: Minimum MDC: Minimum	tor mit evel Detectable Act	ctivity	PF: Pre RL: Re TPU: 7	Method rep Factor eporting Limi Total Propaga	it ated Uncertainty							

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Company : Address :	Georgia Powe Company 241 Ralph Mo			0									
	Atlanta, Geor	gia 30308						Rep	ort Date:	Octo	ber 23, 20	023	
Contact:	Joju Abraham	n											l
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1									
Client Sample ID:ARK-AP1-EB-02Sample ID:640870013Matrix:WQCollect Date:10-OCT-23Receive Date:11-OCT-23Collector:Client							Project: GPCC00100 Client ID: GPCC001						
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF D	<b>DF</b> Analyst	Date	<u>: Time F</u>	<u> 3atch N</u>	<u>Atd.</u>
Rad Gas Flow Propol GFPC Ra228, Liqui													
Radium-228	U U	1.38	+/-1.34	2.21	+/-1.39	3.00	pCi/L		JE1	10/16/23	3 0821 25	507338	1
Radium-226+Radiu	um-228 Calcula	tion "See Par	ent Product	<i>s</i> "			-						
Radium-226+228 Sum	U	1.91	+/-1.44	2.21	+/-1.49		pCi/L		NXL1	10/23/23	3 1409 25	.508821	2
Rad Radium-226													
Lucas Cell, Ra226, J	-		10.500	^ <b>-</b>	10.500	1.00	<i></i>						2
Radium-226	U	0.527	+/-0.523	0.761	+/-0.529	1.00	pCi/L		LXP1	10/23/23	3 0927 25	508813	3
The following Analyt		vere perform	ıed										
Method De	escription												
1 EP.	PA 904.0/SW846 9	9320 Modified											
	lculation												
3 EP.	PA 903.1 Modified	t											
Surrogate/Tracer Re	ecovery 7	Test						Batch ID	Recovery	y% A	Acceptable	e Limit	s
Barium-133 Tracer	ť	GFPC Ra22	8, Liquid "A	s Received"				2507338	66.8	8	(15%-12	25%)	
<b>Notes:</b> The MDC is a sam TPU and Countin			ted at the 9.	5% confiden	ce level (1.96-sigma	.).							
Column headers a DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or mit evel Detectable Ac	ctivity	PF: Pre RL: Re TPU: 7	Method ep Factor eporting Lim Total Propaga	it ated Uncertainty								

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0									
	Atlanta, Georg	gia 30308						Re	port Date:	Octo	ber 23, 2	2023	
Contact:	Joju Abraham	1											
Project:	Arkwright CC	CR Groundw	vater Complia	anceAP1									
Client Sample ID:ARK-AP1PZ-7Sample ID:640870014Matrix:WGCollect Date:10-OCT-23Receive Date:11-OCT-23Collector:Client							Project: GPCC00100 Client ID: GPCC001						
Parameter	Qualifier	Result Ur	ncertainty	MDC	TPU	RL	Units	PF 1	DF Analyst	i Date	: Time	Batch N	Mtd.
Rad Gas Flow Propor GFPC Ra228, Liqui													
Radium-228	U	0.986	+/-1.17	1.98	+/-1.20	3.00	pCi/L		JE1	10/16/23	3 0822	2507338	1
Radium-226+Radiu	ım-228 Calculat	tion "See Pa	rent Products	s″									
Radium-226+228 Sum	U	1.64	+/-1.29	1.98	+/-1.32		pCi/L		NXL1	10/23/23	3 1409	2508821	2
Rad Radium-226													
Lucas Cell, Ra226, J	Liquid "As Rece		10.500	0.505	10515	1.00	<b>C</b> : <b>T</b>		I VD1	: 0 /02 /0/	2 0027	2700012	2
Radium-226		0.652	+/-0.529	0.587	+/-0.545	1.00	pCi/L		LXPI	10/23/23	3 0927	2508813	3
The following Analyt		vere perforr	med										
	escription												
	PA 904.0/SW846 9	320 Modified	t										
	lculation												
3 EP.	PA 903.1 Modified	1											
Surrogate/Tracer Re	ecovery 7	Гest						Batch II	D Recovery	у% А	cceptal	ble Limit	S
Barium-133 Tracer	r	GFPC Ra22	28, Liquid "A	s Received"				2507338	8 61.	.9	(15%-1	125%)	
Notes: The MDC is a sample specific MDC. TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).													
DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum	Column headers are defined as follows: DF: Dilution FactorMtd.: MethodDL: Detection LimitPF: Prep FactorLc/LC: Critical LevelRL: Reporting LimitMDA: Minimum Detectable ActivityTPU: Total Propagated UncertaintyMDC: Minimum Detectable ConcentrationFree Properties (Concentration)												

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Company : Address :	Georgia Powe Company 241 Ralph Mo			0									
	Atlanta, Geor	gia 30308						Re	port Date:	Oct	tober 23, 2	2023	
Contact:	Joju Abraham	n							-				l
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1									
Client Sample ID:ARK-AP1PZ-10Sample ID:640870015Matrix:WGCollect Date:10-OCT-23Receive Date:11-OCT-23Collector:Client							Project: GPCC00100 Client ID: GPCC001						
Parameter	Qualifier	Result Ur	icertainty	MDC	TPU	RL	Units	PF	DF Analyst	t Da	te Time	Batch N	Mtd.
<b>Rad Gas Flow Propor</b> GFPC Ra228, Liqui													
Radium-228	U	1.06	+/-0.958	1.53	+/-0.995	3.00	pCi/L		JE1	10/16/	/23 0822 2	2507338	1
Radium-226+Radium	m-228 Calculai	tion "See Par	rent Product:	<i>s</i> "									
Radium-226+228 Sum		11.6	+/-2.32	1.53	+/-2.85		pCi/L		NXL1	10/23/	/23 1409 2	2508821	2
Rad Radium-226		• 111											
Lucas Cell, Ra226, I Radium-226	Liquid "As Rece	10.5	+/-2.11	1.15	+/-2.67	1.00	nCi/I		I VD1	10/22/	/23 0927 2	2500012	2
				1.15	+/-2.07	1.00	pCi/L		LAF I	10/23/	25 0921 2	200815	3
The following Analyti		vere perforr	ned										
	escription												
	A 904.0/SW846 9	9320 Modified	L										
	lculation												
3 EP/	A 903.1 Modified	1											
Surrogate/Tracer Re	covery 7	Test						Batch I	D Recover	y%	Acceptab	le Limit	S
Barium-133 Tracer		GFPC Ra22	28, Liquid "A	As Received"				250733	8 64.	.6	(15%-1	25%)	
Notes: The MDC is a sample specific MDC. TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).													
Column headers an DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or nit evel Detectable Ac	ctivity	PF: Pro RL: Re TPU: 7	Method rep Factor eporting Lim Total Propag	nit gated Uncertainty								

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0									
	Atlanta, Georg	gia 30308						Re	eport Date:	Oc	ctober 23, 2	2023	
Contact:	Joju Abraham	1							-				
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1									
Client Sample ID:ARK-AP1PZ-11Sample ID:640870016Matrix:WGCollect Date:10-OCT-23Receive Date:11-OCT-23Collector:Client							Project: GPCC00100 Client ID: GPCC001						
			icertainty	MDC	TPU	RL	Units	PF	DF Analyst	<u>t Da</u>	ate Time	Batch M	Mtd.
Rad Gas Flow Propor GFPC Ra228, Liqui													l
Radium-228	U AS KELEIVEU	0.798	+/-1.05	1.78	+/-1.07	3.00	pCi/L		JE1	10/16	5/23 0814	2507338	1
Radium-226+Radiu	m-228 Calcula		rent Product	<i>s"</i>			1						
Radium-226+228 Sum	U	1.77	+/-1.23	1.78	+/-1.27		pCi/L		NXL1	10/23	3/23 1409	2508821	2
Rad Radium-226													
Lucas Cell, Ra226, I	Liquid "As Rece												
Radium-226		0.977	+/-0.648	0.813	+/-0.685	1.00	pCi/L		LXP1	10/23/	3/23 0927	2508813	3
The following Analyt		vere perforr	ned										
Method Des	escription												
1 EP.	PA 904.0/SW846 9	9320 Modified	1										
2 Cal	lculation												
3 EP.	A 903.1 Modified	1											
Surrogate/Tracer Re	ecovery 7	Гest						Batch I	D Recover	'y%	Acceptal	ble Limit	ts
Barium-133 Tracer		GFPC Ra22	28, Liquid "A	s Received"				250733	38 76.	.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).													
DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I	Column headers are defined as follows:DF: Dilution FactorMtd.: MethodDL: Detection LimitPF: Prep FactorLc/LC: Critical LevelRL: Reporting LimitMDA: Minimum Detectable ActivityTPU: Total Propagated UncertaintyMDC: Minimum Detectable ConcentrationHerefore												

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

Company : Address :	Georgia Powe Company 241 Ralph Mc			0									
	Atlanta, Georg	gia 30308						Re	eport Date:	Oc	tober 23, 2	2023	
Contact:	Joju Abraham	1							-				
Project:	Arkwright CC	CR Groundw	ater Complia	anceAP1									
Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	6408700 WG 10-OCT 11-OCT Client	Г-23 Г-23				Cli	oject: ient ID:	GPC	CC00100 CC001				
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF	DF Analyst	<u>t Da</u>	te Time	Batch M	Mtd.
Rad Gas Flow Propor GFPC Ra228, Liqui													I
Radium-228	u no necerca	1.92	+/-1.03	1.44	+/-1.15	3.00	pCi/L		JE1	10/16	/23 0814	2507338	1
Radium-226+Radiu	m-228 Calculat		rent Product	<i>s</i> "			L						
Radium-226+228 Sum		3.72	+/-1.32	1.44	+/-1.48		pCi/L		NXL1	10/23	/23 1409	2508821	2
Rad Radium-226													
Lucas Cell, Ra226, I	Liquid "As Rece												
Radium-226		1.80	+/-0.818	0.633	+/-0.927	1.00	pCi/L		LXP1	10/23/	/23 0927	2508813	3
The following Analyt	ical Methods w	vere perforr	ned										
Method De	escription												
1 EP.	A 904.0/SW846 9	J320 Modified	i										
2 Cal	lculation												
3 EP.	A 903.1 Modified	i											
Surrogate/Tracer Re	ecovery 7	Гest						Batch I	ID Recover	у%	Acceptal	ble Limit	ts
Barium-133 Tracer		GFPC Ra22	.8, Liquid "A	As Received"				250733	38 64.	.7	(15%-	125%)	
Notes: The MDC is a sam TPU and Countin			ted at the 9	5% confider	nce level (1.96-sigma	.).							
DF: Dilution Facto DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I	Column headers are defined as follows:DF: Dilution FactorMtd.: MethodDL: Detection LimitPF: Prep FactorLc/LC: Critical LevelRL: Reporting LimitMDA: Minimum Detectable ActivityTPU: Total Propagated UncertaintyMDC: Minimum Detectable ConcentrationFerep Factor												

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Company : Address :	Georgia Powe Company 241 Ralph Mc			0									
	Atlanta, Georg	gia 30308						Rep	port Date:	Octo'	ber 23, 20	.023	
Contact:	Joju Abraham	1											
Project:	Arkwright CC	CR Groundw	ater Compli:	anceAP1									
Client Sample I Sample ID: Matrix: Collect Date: Receive Date: Collector:	Matrix:WGCollect Date:11-OCT-23Receive Date:11-OCT-23Collector:Client							Project: GPCC00100 Client ID: GPCC001					
Parameter	Qualifier	Result Un	certainty	MDC	TPU	RL	Units	PF I	DF Analyst	Date	• Time ]	Batch N	Atd.
Rad Gas Flow Propor GFPC Ra228, Liqui													
Radium-228	U	2.25	+/-1.57	2.47	+/-1.67	3.00	pCi/L		JE1	10/16/23	3 0815 2	2507338	1
Radium-226+Radiu	ım-228 Calculat	tion "See Par	ent Product	<i>s</i> ″									
Radium-226+228 Sum		5.37	+/-1.91	2.47	+/-2.12		pCi/L		NXL1	10/23/23	3 1409 2	2508821	2
Rad Radium-226	71 <i>.</i>												
Lucas Cell, Ra226, I Radium-226	Liquid "As Kece	eived" 3.12	+/-1.09	0.740	+/-1.30	1.00	nCi/I		I VD1	10/22/22	2 0027 (	2500012	2
				0.740	+/-1.50	1.00	pCi/L		LAFI	10/25/25	3 0927 2	.506615	3
The following Analyt		vere perform	ıed										
	escription												
	PA 904.0/SW846 9	320 Modified											
	liculation	_											
3 EP.	PA 903.1 Modified	1											
Surrogate/Tracer Re	ecovery T	Гest						Batch II	D Recovery	у% A	Acceptabl	le Limit	s
Barium-133 Tracer	τ	GFPC Ra22	8, Liquid "A	As Received"				2507338	8 62.	6	(15%-12	25%)	
Notes: The MDC is a sample specific MDC. TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).													
<u>Column headers an</u> DF: Dilution Factor DL: Detection Lin Lc/LC: Critical Le MDA: Minimum I MDC: Minimum I	or mit evel Detectable Act	tivity	PF: Pro RL: Re	Method ep Factor eporting Limi Total Propaga	it ated Uncertainty								

#### Radiochemistry Technical Case Narrative Georgia Power Company SDG #: 640870

Product: Radium-226+Radium-228 Calculation Analytical Method: Calculation Analytical Procedure: GL-RAD-D-003 REV# 45 Analytical Batch: 2508821

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

<b><u>Client Sample Identification</u></b>
ARK-AP1GWA-1
ARK-AP1-FB-01
ARK-AP1GWA-2
ARK-AP1-EB-01
ARK-AP1PZ-1
ARK-AP1PZ-2
ARK-AP1-FD-01
ARK-AP1PZ-4
ARK-AP1-FB-02
ARK-AP1PZ-3
ARK-AP1PZ-8
ARK-AP1PZ-5
ARK-AP1-EB-02
ARK-AP1PZ-7
ARK-AP1PZ-10
ARK-AP1PZ-11
ARK-AP1-FD-02
ARK-AP1PZ-9

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: GFPC Ra228, Liquid Analytical Method: EPA 904.0/SW846 9320 Modified Analytical Procedure: GL-RAD-A-063 REV# 5 Analytical Batch: 2507338

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

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
640870001	ARK-AP1GWA-1

640870002	ARK-AP1-FB-01
640870003	ARK-AP1GWA-2
640870004	ARK-AP1-EB-01
640870005	ARK-AP1PZ-1
640870006	ARK-AP1PZ-2
640870007	ARK-AP1-FD-01
640870008	ARK-AP1PZ-4
640870009	ARK-AP1-FB-02
640870010	ARK-AP1PZ-3
640870011	ARK-AP1PZ-8
640870012	ARK-AP1PZ-5
640870013	ARK-AP1-EB-02
640870014	ARK-AP1PZ-7
640870015	ARK-AP1PZ-10
640870016	ARK-AP1PZ-11
640870017	ARK-AP1-FD-02
640870018	ARK-AP1PZ-9
1205544152	Method Blank (MB)
1205544153	640870001(ARK-AP1GWA-1) Sample Duplicate (DUP)
1205544154	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.

#### **Technical Information**

#### Recounts

Sample 1205544152 (MB) was recounted due to a suspected blank false positive. The recount is reported.

Product: Lucas Cell, Ra226, Liquid Analytical Method: EPA 903.1 Modified Analytical Procedure: GL-RAD-A-008 REV# 15 Analytical Batch: 2508813

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

<u>GEL Sample ID#</u>	Client Sample Identification
640870001	ARK-AP1GWA-1
640870002	ARK-AP1-FB-01
640870003	ARK-AP1GWA-2
640870004	ARK-AP1-EB-01
640870005	ARK-AP1PZ-1
640870006	ARK-AP1PZ-2
640870007	ARK-AP1-FD-01
640870008	ARK-AP1PZ-4
640870009	ARK-AP1-FB-02
640870010	ARK-AP1PZ-3

640870011	ARK-AP1PZ-8
640870012	ARK-AP1PZ-5
640870013	ARK-AP1-EB-02
640870014	ARK-AP1PZ-7
640870015	ARK-AP1PZ-10
640870016	ARK-AP1PZ-11
640870017	ARK-AP1-FD-02
640870018	ARK-AP1PZ-9
1205546778	Method Blank (MB)
1205546779	640870001(ARK-AP1GWA-1) Sample Duplicate (DUP)
1205546780	640870001(ARK-AP1GWA-1) Matrix Spike (MS)
1205546781	Laboratory Control Sample (LCS)

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

#### **Data Summary:**

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

#### **Miscellaneous Information**

#### **Additional Comments**

The matrix spike, 1205546780 (ARK-AP1GWA-1MS), aliquot was reduced to conserve sample volume.

#### **<u>Certification Statement</u>**

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.

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### QC Summary

				C Si	ummary		I	Report Da	ate: October 23	3, 2023	
Client :	-	ompany, Southern Co ll Blvd NE, Bin 10160	ompany					-	Page 1 of		
~	Atlanta, Georgia										
Contact:	Joju Abraham										
Workorder:	640870										
Parmname		NOM	Sample (	Qual	QC	Units	RPD%	REC%	Range A	nlst	Date Time
Rad Gas Flow											
Batch	2507338 —										
QC1205544153	640870001 DUP										
Radium-228		<b>TT</b>	2.41	U	1.61	pCi/L	39.9		(0% - 100%)	JE1	10/16/2309:05
		Uncert:	+/-1.09		+/-1.09						
QC1205544154	LCS	TPU:	+/-1.25		+/-1.17						
Radium-228	LUS	76.7			67.0	pCi/L		87.3	(75%-125%)	JE1	10/16/2309:05
Kaululli-220		Uncert:			+/-4.44	рель		01.5	(13/0-123/0)	JL1	10/10/2507.05
		TPU:			+/-17.7						
QC1205544152	MB										
Radium-228				U	2.84	pCi/L				JE1	10/16/2310:40
		Uncert:			+/-1.87						
		TPU:			+/-2.00						
Rad Ra-226											
Batch	2508813 —										
QC1205546779	640870001 DUP										
Radium-226			1.90		2.13	pCi/L	11.5		(0% - 100%)	LXP1	10/23/2310:02
		Uncert:	+/-0.801		+/-0.886						
		TPU:	+/-0.848		+/-0.957						
QC1205546781	LCS	27.1			22.9	nCi/I		00	(750/ 1250/)	T VD1	10/22/2210.02
Radium-226		27.1 Uncert:			23.8 +/-2.72	pCi/L		88	(75%-125%)	LAFI	10/23/2310:02
		TPU:			+/-2.72						
QC1205546778	MB	11 U.			1/ 0.01						
Radium-226				U	0.468	pCi/L				LXP1	10/23/2309:27
		Uncert:			+/-0.519						
		TPU:			+/-0.526						
QC1205546780	640870001 MS										
Radium-226		135	1.90		148	pCi/L		109	(75%-125%)	LXP1	10/23/2310:02
		Uncert:	+/-0.801		+/-17.0						
		TPU:	+/-0.848		+/-27.6						

#### 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

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## QC Summary

			20 Sul	, in the second s							
Worko	order: 640870							Page 2	2 of 2		
Parmna	ame	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI	Gamma SpectroscopyUnc	certain identification									
BD	Results are either below the	e MDC or tracer recov	ery is low								
h	Preparation or preservation	holding time was exc	eeded								
R	Sample results are rejected										
^	RPD of sample and duplica	te evaluated using +/-	RL. Concentrations are	<5X the R	L. Qualif	ier Not App	licable for F	adiochemi	stry.		
N/A	RPD or %Recovery limits of	do not apply.									
ND	Analyte concentration is no	t detected above the d	etection limit								
М	M if above MDC and less t	han LLD									
NJ	Consult Case Narrative, Da	ta Summary package,	or Project Manager con	cerning thi	s qualifier	•					
FA	Failed analysis.										
UJ	Gamma SpectroscopyUnc	certain identification									
Q	One or more quality control	l criteria have not been	n met. Refer to the appli	cable narra	tive or DF	ER.					
К	Analyte present. Reported v	value may be biased hi	gh. Actual value is expe	ected to be	lower.						
UL	Not considered detected. The	he associated number	is the reported concentra	tion, whic	h may be i	inaccurate d	ue to a low	oias.			
L	Analyte present. Reported v	value may be biased lo	w. Actual value is expe	cted to be l	higher.						
N1	See case narrative										
Y	Other specific qualifiers we	ere required to properly	y define the results. Con	sult case n	arrative.						
**	Analyte is a Tracer compou	ınd									
М	REMP Result > MDC/CL a	and < RDL									
J	See case narrative for an ex	planation									
** Ind	ndicates that spike recovery li dicates analyte is a surrogate/t	tracer compound.	•	-							
	Relative Percent Difference ( $mes (5X)$ ) the contract require	d detection limit (RL)									

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.

of																		
			П 5		aboratories	rato	ries		C	105	646869	5		GEI 204(	GEL Laboratories, 2040 Savage Road	GEL Laboratories, LLC 2040 Savage Road	C	
COC Number <sup>(1)</sup> : 2 Coolers		I	gel.c		amistry I R	Idiochemi	stry   Radic	Chemistry I Radiochemistry I Radiobioassay I Specialty Analytics	Specialty	Analytics	Lown	DI	<pre>C</pre>	Cha	rleston,	Charleston, SC 29407		
20 Number:	GEL Work Order Number:	rder Numbe			CET B	and A	nalytic	CET Building Analytical Request	lest		9	50		Phoi	ne: (843	Phone: (843) 556-8171	1	
Qient Name: Georgia Power	1		Phone # (937-344	37-344-6	-6533)	W Dafo	unager.	33) Sectional and a section of the s	ent					Fax:	(843) 7	Fax: (843) 766-1178		
Ecject/Site Name: Plant Arkwright Ash Pond 1	1		Fax:			T	61-10	1.1	Sample Analysis Kequested	lalysis	Keques		(Fill i	n the n	umber	of contain	(Fill in the number of containers for each test)	ch test)
Eddress: 241 Ralph McGill Blvd SE, Atlanta, GA 30308	GA 30308					Τ	sample be	e be		-		-	IN	IN	IN	IN	< Pr	< Preservative Type (6)
Collected By: John Myer: Dylan Onintal	Send Results To: jabraham@southernco.com EDD@stantec com	jabraham@sou	thernco.com	EDD@sta	ntec. com		considered:	ered:	-			(əte)	£66	pqu		(B0)		
64	Cassidy.Sutherland@stantec.com	nd@stantec.con	-								(1	ns 'n ()	1.1.2			(905 K' V	-	Comments
Sample ID * For composites - indicate start and stop date/time		*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code <sup>(2)</sup>	Field Filtered (3)	Sample	adioactive es, please sur otopic info.)	) Known or sseH oldizza	19dmun leto (I .qqA) g <i>l</i>	Metals App. I	Alkalinity R2.1 M2) SUT	2540 A ,ID) anoin <i>f</i>	(300.0 Rev.	(6020	Mercury (7	Actals Al, a, Fe, Mn	(task_AS	( task_code: ARK-CCR- ASSMT-2023S1 )
ARK-AP1GWA-1		10-09-23	1345	z	Z	-	A			>	;			4		'N		
ARK-AP1-FB-01		10-09-23	1405	FB	Z	MO			0 4	< >	× ;		×	×	×	+		
ARK-APIGWA-2		10-09-23	1430	z	z	MG			0	X ;	X		×	×	x			
ARK-AP1-EB-01	and the second second	10-09-23	1500	EB	z	OM			0 、	X	X		×	×	x	in the second se		
ARK-AP1PZ-1		10-09-23	1620	z	z	MG.			0 4	××	X ;	× ;	×	x	x	-		
ARK-APIPZ-2		10-09-23	1700	z	Z	MG			0 4	< >	X	× ;	× ;	x	×			
ARK-AP1-FD-01		10-09-23	NA	ED	z	OM			0	X	× ;	×	×	x	x	-	27	
ARK-APIPZ-4		10-10-23	0610	z	1000	MG			0	X ;	X ;	×	×		×	-		
ARK-AP1-FB-02		10-10-23	0630	FB	-	MO			0 4	× >	××	X	x ;		x	-		
ARK-APIPZ-3		10-10-23	0630	z		MG				< ;	<u>&lt;</u> ;	x ;	x		×	_		
	Chain of Custody Signatures	Signatures		:				TATT	0		× .		X	X	X			
gned) Print Name	Date Re	Received by (signed)		Print Name	Date				inaisanhavi rut		Normal:	× K	Kush:		Specify:		(Subjec	(Subject to Surcharge)
1 MWWW JOHNMYEL	31 47/11/0	1 Derdonueulen		Recolor	13	OWS		Fax Results: [ ] Yes	s: []Y(	X ] SS	9							
		C		200	in the		2	Select Deliverable: [ ] C of A	verable:	C of	-	J QC Summary	nmary	[ ] level	_	[X] Level 2	2 [ ] Level	el 3 [ ] Level 4
3	1 1 1 1				2	525	1	Additional Remarks:	Remark	2								
$>$ For sample shipping and delivery details, see $S_d$				2		Can	unlo Col	For Lab Receiving Use Only: Custody Seal Intact? [	sceiving	Use On	ly: Cust	ody Sec	al Intac	12 []		]No C	Cooler Temp:	»: <u>∠</u> °C
1.) Chain of Custody Number = Client Determined						24	indue con	ounpre conecuon 11me 20ne: [ X ] Eastern	107 am	v] :	Easterr		[ ] Pacific		[] Central	[] Mountain		[] Other:
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample	Field Duplicate, $\mathbf{EB} = Equ$	ipment Blank, M	S = Matrix Spil	ce Sample.	MSD = Mat	rix Snike D	hindicate Sa	le. MSD = Matrix Snike Dunlicete Semela C - Cent. C - C	1									
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.	r yes the sample was field	filtered or - N - f	or sample was r	tot field filt	sred.			- o 'ordum	Jiau, C - (	omposite	2							
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, WE=Miter, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste O=Oil E=Filter D=Wine DI=Triane DE=Triane DE	SW=Surface Water, WW=	=Waste Water, W	=Water, ML=N	Aise Liquid	, SO=Soil, 5	D=Sedime	nt, SL=Slu	dge, SS=Sol	id Waste	0=0il F=	Filter <b>D</b> -1	Vina II-	Titita	-				
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for	(i.e. 8260B, 6010B/7470/	<ul> <li>A) and number of</li> </ul>	containers prov	rided for ea	each (i.e. 8260B - 3, 6010B/7470A - 1).	1B - 3, 6011	0B/7470A -	· 1).		1 100 0	1 IIIII 1	wipe, u-	-ume, r	=recal, i	N=Nasal			
6.) Preservative Type: <b>HA</b> = Hydrochloric Acid, <b>NI</b> = Nitric Acid, <b>SH</b> = Sodium Hydroxide, <b>SA</b> = Sulfuric Acid, <b>AA</b> = Ascorbic.	<pre>\cid, SH = Sodium Hydrox</pre>	cide, <b>SA</b> = Sulfur	c Acid, <b>AA</b> = A	scorbic Ac	id, HX = He	xane, ST =	Sodium TI	Acid, HX = Hexane, ST = Sodium Thiosulfate If no meseruative is added - lower 25,12,11,11	<sup>r</sup> no nreser	rative is a	ddad – Ioo		1					
7) KNOWN OR POSSIBLE HAZARDS	Characteristic Hazards	azards	Listed Waste	aste		-	Of	Other	ino breet	valive IS 8	aaea = lea	ve tield b	olank					
	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	gnitable	LW= Listed Waste (F,K,P and U-listed Waste code(s):	ed Waste d U-lister 'e(s):	ste ted wastes.)	]	(i.e mis	OT= Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)	Unknov w pH, a hazards,	vn sbestos, etc.)	berylliu	m, irrit.	ants, o.	ther	bel bel con of s	ase provu ow regara ncerns. (i. ite collect	le any addi ing handli e.: Origin c ed from, oc	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.)
Cd = Cadmium Ag= Silver Cr = Chromium MR= Misc. RCRA metals	TSCA Regulated PCB = Polychlorinated	lated					2	nearthnan										
Pb = Lead	biphenyls																	
					10.2													

					IDOLE	ato	Laboratories LLC	0					50	iEL Lal 040 Sa	GEL Laboratories, LLC 2040 Savage Road	, LLC			
COONStumber <sup>(1)</sup> . COONSTANT				in of CL	ustody	diochemis and Al	get.com <sup>1</sup> Chemistry   Radiochemistry   Radiobioassay   Speci Chain of Custody and Analytical Request	Reque:	ecialty Ana St	lytics				Charlest hone: (	Charleston, SC 29407 Phone: (843) 556-8171	.8171			
PO Number:	GEL W	GEL Work Order Number:			GEL P	oject M	GEL Project Manager: Erin Trent	in Trem					Ľ,	ax: (84.	Fax: (843) 766-1178	78			
Client Name: Georgia Power			Phone # (937-344-6533)	7-344-65	(33)			Samp	Sample Analysis Requested <sup>(5)</sup>	ysis Re	quested	(5) (F)	ll in th	e numt	(Fill in the number of containers for each test)	ntainers f	or eacl	n test)	
Project/Site Name: Plant Arkwright Ash Pond 1	Ash Pond 1		Fax:				Should this		IN	IN			IN	IN IN	IN	-	< Pre	< Preservative Type (6)	(9)
Addres: 241 Ralph McGill Blvd SE, Atlanta, GA 30308	, Atlanta, GA 30308						sample be considered:	<u></u>	100.00		рс	5	-		"g				
Collected By: John Myer; Dylan		Send Results To: jabraham@southernco.com EDD@stantec.com Cassidy.Sutherland@stantec.com	thernco.com E	SDD@stan	tec.com		مرارد آلک	Lids	1993	1.22	Metho	etlu2 ,F1 2.1 199	(B(		<u>' К' М</u>		Ū	Comments	1
0280 Sample ID * For composites - indicate start and stop date/time	D rt and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code <sup>(2)</sup> F	Field Filtered (3)	Sample Matrix <sup>(4)</sup>	Radioactive yes, please sul isotopic info.) (7) Known or	possible Haza Total number	I.qqA)gA	Metals App. Alkalinit	R2. TDS (SM 2540	Anions (Cl, I (300.0 Rev.	Metals A (6020	TAD 226-2	Mercury ( Metals Al Ma, Fe, Mn	<u>کي ک</u>	ASS	( task_code: ARK-CCR- ASSMT-2023S1 )	ť,
ARK-APIPZ-8	2-8	10-10-23	1155	z	z	MG			9	X	×	Х	X X	X					
ARK-AP1PZ-5	2-5	10-10-23	1120	Z	Z	ЪW			9	X	X	Х	X X	X		2			
ARK-AP1-EB-02	3-02	10-10-23	1210	EB	z	WQ		1-1	9	×	×	x	XX	X					
ARK-AP1PZ-7	-7	10-10-23	1350	N	Z	МG			9	x	x	x	XX		- /				
ARK-AP1PZ-10	-10	10-10-23	1420	z	Z	WG			9	X	×	x	X X	X					
ARK-AP1PZ-11	-11	10-10-23	1615	z	z	DM			6	X	x	x	X X	X					
ARK-AP1-FD-02	-02	10-10-23	NA	FD	Z	МQ			9	×	×	x	X X						
ARK-AP1PZ-9	6-2	10-11-23	0820	Z	z	MG			9	X	×	x	X X						
						-1977								_					
	Chain of Cu	Chain of Custody Signatures						TAT R	TAT Requested:	: Normal:	nal:	X Rush:	sh:	Spe	Specify:	-	(Subje	(Subject to Surcharge)	e)
Relinquished By (Signed) Print	Print Name Date	Received by (signed)		Print Name	Date	te	Fav	Results.	Fax Results: [ ] Ves	ONLXI	No								
1 aprelation John Myou	MXXX 10/1/23	1922 Margor	manulan	1	Bradon	1 222	will Om Sele	Select Deliverable: [	erable: [	] C of A		] QC Summary	lary [	] level [		[X] Level 2	[] Level 3	el 3 [ ] Level 4	14
2		22 Th			1	11/01	D Add	Additional Remarks.	emarks:										
3		З				152	_	Lab Rec	For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes	se Only	Custo	ty Seal	Intact?	[ ] Ye.	s [] No		Cooler Temp:	y: <mark>&lt; </mark> ℃	
> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)	details, see Sample Reco	eipt & Review form	(SRR.)			S	Sample Colle	ction Ti	Collection Time Zone: [X] Eastern	[[X]	astern	[] Pacific		[] Central		[] Mountain		[] Other:	Τ
<ol> <li>Chain of Custody Number = Crient Determined</li> <li>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</li> </ol>	ined 9 Blank, FD = Field Duplicate,	<b>EB</b> = Equipment Blank,	MS = Matrix Sp	ike Sample.	MSD = M	atrix Spike	Duplicate Sam	ple, G = G	rab, C = Co	mposite									
<ol> <li>Freid Futered. For liquid matrices, indicate with a - Y - for yes the sample was held initered or - N - for sample was not field filtered.</li> <li>Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, WI=Mise Liquid, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal</li> </ol>	: with a - Y - for yes the sample Groundwater, SW=Surface Wi	e was held hiltered or - N - ater, WW=Waste Water,	<ul> <li>for sample was</li> <li>W=Water, ML=</li> </ul>	not tield fi ™isc Liqui	filtered. Juid, <b>SO=</b> Soil	SD=Sedir	nent, SL=Sludg	e, SS=Soli	d Waste, O	=Oil, F=F	lter, P=W	ipe, U=U	rine, F=F	ecal, N=l	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),	thod requested (i.e. 8260B, 60)	10B/7470A) and number v	of containers pro	ovided for e	ach (i.e. <i>8</i> 2	60B - 3, 6(	910B/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	t, NI = Nitric Acid, SH = Sodi	um Hydroxide, SA = Sulfi	uric Acid, AA =	Ascorbic A	cid, HX =	Hexane, ST	r = Sodium Thic	osulfate, If	no preserva	ttive is ad	led = leav	e field bla	nk						
7.) KNOWN OR POSSIBLE HAZA	RDS Characte FL = Flan	Characteristic Hazards FL = Flammable/Ignitable	Listed V LW= Lis	Listed Waste LW= Listed Waste	0		Other OT=0	er = Other /	Other OT= Other / Unknown		8				Please	provide a	any add	Please provide any additional details below recording hardling and/or disposed	lnson
RCRA Metals As = Arsenic Hg= Mercury Ba = Barium Se= Selenium	CO = Corrosive RE = Reactive	rosive ctive	(F,K,P and U-l Waste code(s):	(F,K,P and U-listed wastes.) Waste code(s):	ed waste.		(i.e.: misc. Desc	(i.e.: High/lo misc. health   Description:	(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:	bestos, l etc.)	erylliun	ı, irrita	nts, oth	er	concer of site c	<b>ns.</b> (i.e.: collected	Origin from, c	concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)	ype tc.)
Cd = Cadmium Ag= Silver Cr = Chromium MR= Misc. RCRA metals		TSCA Regulated PCB = Polvchlorinated					ļ							1				14	
		biphenyls																	
					11	in the		-											

С	lient: GPCC				SAMPLE RECEIPT & REVIEW FORM 640869 SDG/AR/COC/Work Order:
R	eceived By: QG				Date Received: 0 U 23
	Carrier and Tracking Number				Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other
Su	spected Hazard Information		S	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A):	Shipped as a DOT Hazardous?			1	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? YesNo
B) rec	Did the client designate the samples are to be eived as radioactive?			1	COC potation or radioactive stickers on containers equal client designation.
C) radi	Did the RSO classify the samples as ioactive?			K	Aaximum Net Counts Observed* (Observed Counts - Area Background Counts):
D)	Did the client designate samples are hazardous	?			C notation or hazard labels on containers equal client designation.
E) [	Did the RSO identify possible hazards?		1		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?		1		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	1		1	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$ ?*	/	/	7	Preservation Method: We Lee Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 2 2
4	Daily check performed and passed on IR temperature gun?	1		1	Temperature Device Serial #: <u>IR1-23</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	1			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	1	1	1	Sample ID's and Containers Affected:
,	Do any samples require Volatile Analysis?			1	If Ppservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No) Are liquid VOA vials free of headspace? YesNoNA Sample ID's and containers affected:
1	Samples received within holding time?	1		/	ID's and tests affected:
t	Sample ID's on COC match ID's on bottles?	1		1	ID's and containers affected:
	Date & time on COC match date & time on bottles?	/		-	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
N n	Jumber of containers received match umber indicated on COC?	/			Circle Applicable: No container count on COC Other (describe)
A	re sample containers identifiable as EL provided by use of GEL labels?	1			
C	OC form is properly signed in	/		ł	Circle Applicable: Not relinquished Other (describe)
m	ents (Use Continuation Form if needed):				,

GL-CHL-SR-001 Rev 7

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	SC000122024-04
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
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	T104704235-23-21
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

List of current GEL Certifications as of 23 October 2023



October 20, 2023

Kelley Sharpe ARCADIS - Atlanta 2839 Paces Ferry Rd STE 900 Atlanta, GA 30339

RE: Project: Plant Arkwright-CCR Ash Pond Pace Project No.: 92691202

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2023. 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 Tacks

Maiya Parks maiya.parks@pacelabs.com 770-734-4205 Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR Jordan Gamble, ARCADIS - Atlanta Ben Hodges, Georgia Power-CCR Warren Johnson, ARCADIS - Atlanta Laura Midkiff, Georgia Power Noelia Muskus Ruiz, Georgia Power Charles Steele, Arcadis - Atlanta Tina Sullivan, ERM





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

#### CERTIFICATIONS

Project: Plant Arkwright-CCR Ash Pond Pace Project No.: 92691202

#### 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



#### SAMPLE SUMMARY

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 9269

No.:	92691202

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92691202001	ARK-BC-0.3	Water	10/03/23 12:45	10/03/23 15:46
92691202002	ARK-BC-0.1	Water	10/03/23 11:21	10/03/23 15:46
92691202003	ARK-OR-0.8	Water	10/03/23 09:35	10/03/23 15:46
92691202004	ARK-OR-0.1	Water	10/03/23 11:50	10/03/23 15:46
92691202005	ARK-OR-0.3	Water	10/03/23 10:12	10/03/23 15:46
92691202006	ARK-OR+0.25	Water	10/03/23 12:12	10/03/23 15:46



#### SAMPLE ANALYTE COUNT

Project:Plant Arkwright-CCR Ash PondPace Project No.:92691202

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92691202001	ARK-BC-0.3	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92691202002	ARK-BC-0.1	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92691202003	ARK-OR-0.8	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92691202004	ARK-OR-0.1	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92691202005	ARK-OR-0.3	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92691202006	ARK-OR+0.25	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

*ace*°

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92691202

Sample: ARK-BC-0.3 PWS:	Lab ID: 9269 Site ID:	1202001 Collected: 10/03/23 12:45 Sample Type:	Received:	10/03/23 15:46	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.0706 ± 0.571 (1.12) C:NA T:90%	pCi/L	10/19/23 13:13	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.231 ± 0.383 (0.834) C:80% T:79%	pCi/L	10/18/23 11:45	5 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.302 ± 0.954 (1.95)	pCi/L	10/20/23 16:34	4 7440-14-4	

*ace*°

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92691202

Sample: ARK-BC-0.1 PWS:	Lab ID: 9269 Site ID:	1202002 Collected: 10/03/23 11:21 Sample Type:	Received:	10/03/23 15:46	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	-0.134 ± 0.490 (1.06) C:NA T:92%	pCi/L	10/19/23 13:1:	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.297 ± 0.399 (0.854) C:77% T:84%	pCi/L	10/18/23 11:4	5 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.297 ± 0.889 (1.91)	pCi/L	10/20/23 16:34	4 7440-14-4	

*ace*°

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92691202

Sample: ARK-OR-0.8 PWS:	Lab ID: 9269 Site ID:	1202003 Collected: 10/03/23 09:35 Sample Type:	Received:	10/03/23 15:46	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	-0.123 ± 0.295 (0.737) C:NA T:96%	pCi/L	10/19/23 13:13	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.106 ± 0.368 (0.829) C:77% T:76%	pCi/L	10/18/23 11:46	6 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.106 ± 0.663 (1.57)	pCi/L	10/20/23 16:34	4 7440-14-4	

ace

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92691202

Sample: ARK-OR-0.1 PWS:	Lab ID: 9269 Site ID:	1202004 Collected: 10/03/23 11:50 Sample Type:	Received:	10/03/23 15:46	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.000 ± 0.567 (1.15) C:NA T:90%	pCi/L	10/19/23 13:13	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.549 ± 0.366 (0.700) C:79% T:83%	pCi/L	10/18/23 11:40	6 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.549 ± 0.933 (1.85)	pCi/L	10/20/23 16:3	4 7440-14-4	

*ace*°

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92691202

Sample: ARK-OR-0.3 PWS:	Lab ID: 9269 Site ID:	1202005 Collected: 10/03/23 10:12 Sample Type:	Received:	10/03/23 15:46	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.000 ± 0.432 (0.913) C:NA T:92%	pCi/L	10/19/23 13:13	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.160 ± 0.333 (0.734) C:81% T:83%	pCi/L	10/18/23 11:40	6 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.160 ± 0.765 (1.65)	pCi/L	10/20/23 16:3	4 7440-14-4	

*ace*°

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92691202

Sample: ARK-OR+0.25 PWS:	Lab ID: 9269 Site ID:	1202006 Collected: 10/03/23 12:12 Sample Type:	Received:	10/03/23 15:46	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.000 ± 0.464 (0.950) C:NA T:91%	pCi/L	10/19/23 13:13	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.187 ± 0.344 (0.754) C:80% T:77%	pCi/L	10/18/23 11:46	6 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.187 ± 0.808 (1.70)	pCi/L	10/20/23 16:34	4 7440-14-4	



#### **QUALITY CONTROL - RADIOCHEMISTRY**

Project:	ject: Plant Arkwright-CCR Ash Pond								
Pace Project No.:	92691202								
QC Batch:	620910	Analysis Method:	EPA 904.0						
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 2	28					
		Laboratory:	Pace Analytical Services - Greensburg						
Associated Lab Sa	mples: 92691202001, 9269120200	02, 92691202003, 92691202004	4, 92691202005, 9	2691202006					
METHOD BLANK:	3026015	Matrix: Water							
Associated Lab Sa	mples: 92691202001, 9269120200	02, 92691202003, 9269120200	4, 92691202005, 9	2691202006					
Para	meter Act ±	Jnc (MDC) Carr Trac	Units	Analyzed	Qualifiers				
Radium-228	$0.112 \pm 0.300$ (	0.672) C:79% T:87%	pCi/L	10/18/23 11:43					

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.



#### **QUALITY CONTROL - RADIOCHEMISTRY**

Project:	Plant Arkwright-CCR Ash P							
Pace Project No.:	92691202							
QC Batch:	620909	Analysis Method:	EPA 903.1					
QC Batch Method:	EPA 903.1	Analysis Description:	903.1 Radium-226					
		Laboratory:	Pace Analytical	Services - Greensbur	g			
Associated Lab Samples: 92691202001, 92691202002, 92691202003, 92691202004, 92691202005, 92691202006								
METHOD BLANK:	3026014	Matrix: Water						
Associated Lab Sa	mples: 92691202001, 926	91202002, 92691202003, 9269120200	4, 92691202005, 9	2691202006				
Para	neter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers			
Radium-226	0.504 ±	0.400 (0.520) C:NA T:93%	pCi/L	10/19/23 13:00				

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.



#### QUALIFIERS

Project: Plant Arkwright-CCR Ash Pond

Pace Project No.: 92691202

#### 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.

ace

#### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:Plant Arkwright-CCR Ash PondPace Project No.:92691202

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92691202001	ARK-BC-0.3	EPA 903.1	620909		
92691202002	ARK-BC-0.1	EPA 903.1	620909		
92691202003	ARK-OR-0.8	EPA 903.1	620909		
92691202004	ARK-OR-0.1	EPA 903.1	620909		
92691202005	ARK-OR-0.3	EPA 903.1	620909		
92691202006	ARK-OR+0.25	EPA 903.1	620909		
92691202001	ARK-BC-0.3	EPA 904.0	620910		
92691202002	ARK-BC-0.1	EPA 904.0	620910		
92691202003	ARK-OR-0.8	EPA 904.0	620910		
92691202004	ARK-OR-0.1	EPA 904.0	620910		
92691202005	ARK-OR-0.3	EPA 904.0	620910		
92691202006	ARK-OR+0.25	EPA 904.0	620910		
92691202001	ARK-BC-0.3	Total Radium Calculation	623972		
92691202002	ARK-BC-0.1	Total Radium Calculation	623972		
92691202003	ARK-OR-0.8	Total Radium Calculation	623972		
92691202004	ARK-OR-0.1	Total Radium Calculation	623972		
92691202005	ARK-OR-0.3	Total Radium Calculation	623972		
92691202006	ARK-OR+0.25	Total Radium Calculation	623972		

ſ	ARK-C	App		S Aller	12		10	9		4	÷.	9	4	2	-	1	ITEM #			Reques	Phone:	Atlanta Email:	Address:	Required Company:	Section A	
	ARK-CCR-ASSNT-202352 1003	AQD: 1V • 30, A4, 54, 54, 54, 50, 10, 70, 10, 11, mo, 54, 11 • 10		ADDITIONAL COMMENTS							ARK-OR+0.25	ARK-OR-0.3	ARK-OR-0 1	ARK-OR-0.8	ARK-BC-0.1	ARK-BC-0.3	e -	SAMPLE ID		Requested Due Date: 5 Day unit	Fax	Aliania, GA 30339 Emeil: kelley.sharpe@arcadis.com	s: 2839 Paces Ferry Rd	Required Client Information: Company: ARCADIS - Atlanta		Page Analytical
		20, 11 T 113	2º TI + Ha									l						Drinking Witter DW Water WT Water WT Product P Sol/Solid SL		Impect #:	Project Nam	Purchase Order #	Copy To:	Report To: Kalley Sharpe, W	Section B	
	4	61		RELINCUSS							WGG	WG	WGG	W G G	WG	WGG		see valid code:			Ā	der#	Ben H	Kalla		
		t		OUNSER	-													G-GRAB C=C	COMP)	1	Plant A	ଜୁ	lodges	V Shart		
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SAN SAN			1	NOUNTERN FA						1	1212	1012	1150	0935	1171		TIME	START	ŝ		Plant Artwright/CCR-Ash Pond Closure	4-000	Ben Hodges, Joju Abraham	Kelley Sharpe, Warren Johnson		
SAUFICER RAVE AND SCONATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:			Arila	Four		_		_	_	-	2	2	0	5	È				COLLECTED		-Ash f	Ĩ	a	hnson		₹Ω
Name		F	1														DATE		ËÖ		ond C					CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.
of SA			1/2/22														TIME	END .			losure					
MPLE			\$	DATE	_		-		_	-	-		-	┢	-	-	m SAMPLE TEMP A	T COLLECTIO	N							
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ice (Y/N)				MOLE CONDITIONS															144					N		
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Page 15 of 17

Effective Date: 11/14/2022			1999-1999 19			
ry receiving samples:	1					
le Eden Greenwood	Huntersville 🗌	Raleigh	Me	hanicsvil:	le Atlanta K	ernersville
e Condition Client Name:		0 2	- 1		:926912	02
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Material: 🖉 Bubble Wrap 🔲 Bu	ibble Bags Non	e 🗌 Oth	ier		Biological Tissue Froz	en?
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-7 -7 Correction Fact		Wet Blu	ie 🗍	None		
emp:Add/Subtract (	C) <u>0.0</u>				above freezing to 6°C	
27			[	Samples o has begun	ut of temp criteria. Samples o	n ice, cooling process
mp Corrected (°C):ううう gulated Soil ( □ N/A, water sample)						that we had
mples originate in a quarantine zone within th	e United States: CA, NY	or SC	Did	samples origi	nate from a foreign source (ir and Puerto Rico)?  Yes	nternationally,
maps)? Yes No			Inclu	iding Hawaii	Comments/Discrepancy:	
n of Custody Present?		□N/A	1.			
ples Arrived within Hold Time?	Yes No	□n/a	2.			
rt Hold Time Analysis (<72 hr.)?	Yes 🖉 No		3.			
h Turn Around Time Requested?	🗌 Yes 🛛 🕅 a	□n/a	4.			
icient Volume?	Aves No	□n/a	5.			
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rect Containers Used? Pace Containers Used? Intainers Intact? Solved analysis: Samples Field Filtered? Includes Date/Time/ID/Analysis Matrix: adspace in VOA Vials (>5-6mm)? D Blank Present? D Blank Custody Seals Present?	Yes     No	Date/Tim	7. 8. 9. 10. 11.	split contain		  _

1	ABALTICAL	SERVICES	E	ffec	tive I	Date:	11/	14/2	2022																						
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11Jan	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)	BP45-125 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) (CI-)	<b>AG1H-1</b> liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved {N/A} (Cl-)	<b>AG15-</b> 1 liter Amber H25O4 (pH < 2)	<b>AG3S-</b> 250 mL Amber H25O4 (pH < 2)	DG94-40 mL Amber NH4Ci (N/A)(Cl-)	DG9H-40 mL VOA HCI (N/A)	VG9T-40 mL VOA Na252O3 (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)	BRIN	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGOU-100 ml. Amber Unpreserved (N/A) (CI-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
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S	ample	ID	Тур	e of P	resen	vative	p	H upo			-		ervati				Time p		vatio		Am		of Pre added	servati I	ive		Lot #				
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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.



November 07, 2023

Kelley Sharpe ARCADIS - Atlanta 2839 Paces Ferry Rd STE 900 Atlanta, GA 30339

#### RE: Project: Plant Arkwright-CCR Ash Pond-Revised Report Pace Project No.: 92691209

Dear Kelley Sharpe:

Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2023. 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

Rev. 1 - This replaces the November 3, 2023 final report. Due to lab error, this report was revised to update the 6010 Metals list reported for sample 92691209-001 (ARK-BC-0.3). No other changes were made to this report.

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

Sincerely,

Maina Tacks

Maiya Parks maiya.parks@pacelabs.com 770-734-4205 Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR Jordan Gamble, ARCADIS - Atlanta Ben Hodges, Georgia Power-CCR Warren Johnson, ARCADIS - Atlanta Laura Midkiff, Georgia Power Noelia Muskus Ruiz, Georgia Power Tina Sullivan, ERM



### **REPORT OF LABORATORY ANALYSIS**

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



#### CERTIFICATIONS

Project:Plant Arkwright-CCR Ash Pond-Revised ReportPace Project No.:92691209

#### 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

#### Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092 Florida DOH Certification #: E87315 Georgia DW Inorganics Certification #: 812 South Carolina Laboratory ID: 99030 South Carolina Certification #: 99030001 Virginia/VELAP Certification #: 460222

North Carolina Certification #: 381 South Carolina Certification #: 98011001 Virginia Certification #: 460204



#### SAMPLE SUMMARY

Project:Plant Arkwright-CCR Ash Pond-Revised ReportPace Project No.:92691209

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92691209001	ARK-BC-0.3	Water	10/03/23 12:45	10/03/23 15:46
92691209002	ARK-BC-0.1	Water	10/03/23 11:21	10/03/23 15:46
92691209003	ARK-OR-0.8	Water	10/03/23 09:55	10/03/23 15:46
92691209004	ARK-OR-0.1	Water	10/03/23 11:50	10/03/23 15:46
92691209005	ARK-OR-0.3	Water	10/03/23 10:12	10/03/23 15:46
92691209006	ARK-OR+0.25	Water	10/03/23 12:12	10/03/23 15:46



#### SAMPLE ANALYTE COUNT

Project:Plant Arkwright-CCR Ash Pond-Revised ReportPace Project No.:92691209

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92691209001	ARK-BC-0.3	EPA 6010D	DRB	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	YEG	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92691209002	ARK-BC-0.1	EPA 6010D	DRB	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	YEG	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92691209003	ARK-OR-0.8	EPA 6010D	DRB	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	YEG	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92691209004	ARK-OR-0.1	EPA 6010D	DRB	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	YEG	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92691209005	ARK-OR-0.3	EPA 6010D	DRB	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	YEG	2	PASI-A
		EPA 9056A	CDC	3	PASI-A
92691209006	ARK-OR+0.25	EPA 6010D	DRB	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	YEG	2	PASI-A
		EPA 9056A	CDC	3	PASI-A



#### SAMPLE ANALYTE COUNT

Project: Pace Project No.:	Plant Arkwright-CCR Ash Pond-Revised Report 92691209				
Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory

PASI-A = Pace Analytical Services - Asheville

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

*ace*°

Project: Plant Arkwright-CCR Ash Pond-Revised Report

Pace Project No.: 92691209

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02601200		

Sample: ARK-BC-0.3	Lab ID:	92691209001	Collected: 10/03/2	23 12:4	5 Received: 10	/03/23 15:46 N	latrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual			
6010D ATL ICP	Analytical	Method: EPA 60	010D Preparation M	ethod: E	EPA 3010A						
	Pace Anal	ytical Services -	Peachtree Corners,	GA							
Boron	N	D mg/L	0.040	1	10/10/23 11:20	10/23/23 23:25	7440-42-8				
Potassium	2.	-	0.50	1	10/10/23 11:20	10/24/23 20:15	7440-09-7				
Sodium	11.	2 mg/L	1.0	1	10/10/23 11:20	10/24/23 20:15	7440-23-5	M1			
Calcium	12.	9 mg/L	1.0	1	10/10/23 11:20	10/23/23 23:25	7440-70-2	L2,M0			
Magnesium	5.	5 mg/L	0.050	1	10/10/23 11:20	10/23/23 23:25	7439-95-4	M1			
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A										
	Pace Anal	ytical Services -	Peachtree Corners,	GA							
Antimony	N	D mg/L	0.0030	1	10/07/23 09:18	10/10/23 15:56	7440-36-0				
Arsenic	N	D mg/L	0.0050	1	10/07/23 09:18	10/10/23 15:56	7440-38-2				
Barium	0.03	<b>7</b> mg/L	0.0050	1	10/07/23 09:18	10/10/23 15:56	7440-39-3				
Beryllium	N	D mg/L	0.00050	1	10/07/23 09:18	10/10/23 15:56	7440-41-7				
Cadmium	N	D mg/L	0.00050	1	10/07/23 09:18	10/10/23 15:56	7440-43-9				
Chromium	N	D mg/L	0.0050	1	10/07/23 09:18	10/10/23 15:56	7440-47-3				
Cobalt	N	D mg/L	0.0050	1	10/07/23 09:18	10/10/23 15:56	7440-48-4				
Lead	N	D mg/L	0.0010	1	10/07/23 09:18	10/10/23 15:56	7439-92-1				
Lithium	N	D mg/L	0.030	1	10/07/23 09:18	10/10/23 15:56	7439-93-2	L1			
Molybdenum	N	D mg/L	0.010	1	10/07/23 09:18	10/10/23 15:56	7439-98-7				
Selenium	N	D mg/L	0.0050	1	10/07/23 09:18	10/10/23 15:56	7782-49-2				
Thallium	N	D mg/L	0.0010	1	10/07/23 09:18	10/10/23 15:56	7440-28-0				
7470 Mercury	Analytical	Method: EPA 74	170A Preparation Me	ethod: E	PA 7470A						
	Pace Anal	ytical Services -	Peachtree Corners,	GA							
Mercury	N	D mg/L	0.00020	1	10/12/23 12:00	10/12/23 16:52	7439-97-6				
2540C Total Dissolved Solids	Analytical	Method: SM 25	40C-2015								
	Pace Anal	ytical Services -	Peachtree Corners,	GA							
Total Dissolved Solids	99.	<b>0</b> mg/L	25.0	1		10/04/23 14:07					
2320B Alkalinity	Analytical	Method: SM 23	20B-2011								
-	Pace Anal	ytical Services -	Asheville								
Alkalinity,Bicarbonate (CaCO3)	60.	9 mg/L	5.0	1		10/09/23 17:07					
Alkalinity, Total as CaCO3	60.	0	5.0	1		10/09/23 17:07					
9056 IC anions 28 Days	Analytical	Method: EPA 90	)56A								
•	2	ytical Services -									
Chloride	9.	3 mg/L	1.0	1		10/04/23 02:05	16887-00-6				
Fluoride	0.1	0	0.10	1		10/04/23 02:05					
Sulfate	11.	0	1.0	1		10/04/23 02:05					

Pace

Project: Plant Arkwrigh Pace Project No.: 92691209	t-CCR Ash Pond-Re	vised Repor	rt					
Sample: ARK-BC-0.1	Lab ID: 926	91209002	Collected: 10/03/2	3 11:21	Received: 10	)/03/23 15:46 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Mether	hod: EPA 60	010D Preparation Me	ethod: E	PA 3010A			
	Pace Analytica	al Services -	Peachtree Corners,	GA				
Boron	0.045	mg/L	0.040	1	10/31/23 12:33	11/02/23 19:05	7440-42-8	
Potassium	2.8	mg/L	0.50	1	10/31/23 12:33	11/02/23 19:05	7440-09-7	
Sodium	11.3	mg/L	1.0	1	10/31/23 12:33	11/02/23 19:05	7440-23-5	M1
Calcium	15.0	mg/L	1.0	1	10/31/23 12:33	11/02/23 19:05	7440-70-2	M1
Magnesium	6.4	mg/L	0.050	1	10/31/23 12:33	11/02/23 19:05	7439-95-4	
6020 MET ICPMS	Analytical Mether	hod: EPA 60	20B Preparation Me	thod: E	PA 3005A			
	Pace Analytica	al Services -	Peachtree Corners,	GA				
Antimony	ND	mg/L	0.0030	1	10/07/23 09:18	10/10/23 16:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:00	7440-38-2	
Barium	0.036	mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	1	10/07/23 09:18	10/10/23 16:00	7440-41-7	
Cadmium	ND	mg/L	0.00050	1	10/07/23 09:18	10/10/23 16:00	7440-43-9	
Chromium	ND	mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:00	7440-48-4	
Lead	ND	mg/L	0.0010	1	10/07/23 09:18	10/10/23 16:00	7439-92-1	
Lithium	ND	mg/L	0.030	1	10/07/23 09:18	10/10/23 16:00	7439-93-2	L1
Molybdenum	ND	mg/L	0.010	1	10/07/23 09:18	10/10/23 16:00	7439-98-7	
Selenium	ND	mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:00	7782-49-2	
Thallium	ND	mg/L	0.0010	1	10/07/23 09:18	10/10/23 16:00	7440-28-0	
7470 Mercury			70A Preparation Me Peachtree Corners,		PA 7470A			
Mercury	ND	mg/L	0.00020	1	10/12/23 12:00	10/12/23 16:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Metl Pace Analytica		40C-2015 Peachtree Corners,	GA				
Total Dissolved Solids	110	mg/L	25.0	1		10/04/23 14:07		
2320B Alkalinity	Analytical Meth Pace Analytica							
Alkalinity,Bicarbonate (CaCO3)	61.8	mg/L	5.0	1		10/09/23 17:28		
Alkalinity, Total as CaCO3	61.8	mg/L	5.0	1		10/09/23 17:28	5	
9056 IC anions 28 Days	Analytical Meth Pace Analytica							

	Pace Analytical	Services - Asn	eville		
Chloride	9.2	mg/L	1.0	1	10/04/23 02:20 16887-00-6
Fluoride	0.14	mg/L	0.10	1	10/04/23 02:20 16984-48-8
Sulfate	14.7	mg/L	1.0	1	10/04/23 02:20 14808-79-8

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Project: Plant Arkwright-CCR Ash Pond-Revised Report

Pace Project No.: 92691209

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02601200		

Sample: ARK-OR-0.8	Lab ID: 9	2691209003	Collected:	10/03/2	3 09:55	Received: 10	)/03/23 15:46	Matrix: Water	
Parameters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical M	lethod: EPA 60	010D Prepara	ation Me	ethod: EF	PA 3010A			
	Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L		0.040	1	10/10/23 11:20	10/23/23 23:5	1 7440-42-8	
Calcium	7.4	mg/L		1.0	1	10/10/23 11:20	10/23/23 23:5	1 7440-70-2	L2
Magnesium	2.0	mg/L		0.050	1	10/10/23 11:20	10/23/23 23:5	1 7439-95-4	
Potassium	3.6	mg/L		0.50	1	10/10/23 11:20	10/24/23 20:30	6 7440-09-7	
Sodium	9.4	mg/L		1.0	1	10/10/23 11:20	10/24/23 20:30	6 7440-23-5	
6020 MET ICPMS	Analytical M	lethod: EPA 60	020B Prepara	ation Me	thod: EF	PA 3005A			
	Pace Analy	Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	C	0.0030	1	10/07/23 09:18	10/10/23 16:14	4 7440-36-0	
Arsenic	ND	mg/L	(	0.0050	1	10/07/23 09:18	10/10/23 16:14	4 7440-38-2	
Barium	0.021	mg/L	C	0.0050	1	10/07/23 09:18	10/10/23 16:14	4 7440-39-3	
Beryllium	ND	mg/L	0.	00050	1	10/07/23 09:18	10/10/23 16:14	4 7440-41-7	
Cadmium	ND	mg/L	0.	00050	1	10/07/23 09:18	10/10/23 16:14	4 7440-43-9	
Chromium	ND	mg/L	C	0.0050	1	10/07/23 09:18	10/10/23 16:14	4 7440-47-3	
Cobalt	ND	mg/L	C	0.0050	1	10/07/23 09:18	10/10/23 16:14	4 7440-48-4	
Lead	ND	mg/L	C	0.0010	1	10/07/23 09:18	10/10/23 16:14	4 7439-92-1	
Lithium	ND	mg/L		0.030	1	10/07/23 09:18	10/10/23 16:14	4 7439-93-2	L1
Molybdenum	ND	mg/L		0.010	1	10/07/23 09:18	10/10/23 16:14	4 7439-98-7	
Selenium	ND	mg/L	C	0.0050	1	10/07/23 09:18	10/10/23 16:14	4 7782-49-2	
Thallium	ND	mg/L	C	0.0010	1	10/07/23 09:18	10/10/23 16:14	4 7440-28-0	
7470 Mercury	Analytical M	lethod: EPA 74	170A Prepara	tion Me	thod: EF	PA 7470A			
	Pace Analy	tical Services -	Peachtree C	orners,	GA				
Mercury	ND	mg/L	0.	00020	1	10/12/23 12:00	10/12/23 16:5	7 7439-97-6	
2540C Total Dissolved Solids	Analytical M	lethod: SM 254	40C-2015						
	Pace Analy	tical Services -	Peachtree C	orners,	GA				
Total Dissolved Solids	72.0	mg/L		25.0	1		10/04/23 14:0	7	
2320B Alkalinity	Analytical M	lethod: SM 23	20B-2011						
-	Pace Analy	tical Services -	Asheville						
Alkalinity,Bicarbonate (CaCO3)	32.7	mg/L		5.0	1		10/09/23 17:4	В	
Alkalinity, Total as CaCO3	32.7	0		5.0	1		10/09/23 17:48	8	
9056 IC anions 28 Days	Analytical M	lethod: EPA 90	)56A						
•	2	tical Services -							
Chloride	9.0	mg/L		1.0	1		10/04/23 02:34	4 16887-00-6	
Fluoride	ND	0		0.10	1		10/04/23 02:34		
Sulfate	6.4	0		1.0	1		10/04/23 02:34		

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Project: Plant Arkwright-CCR Ash Pond-Revised Report

Pace Project No.: 92691209

Sample: ARK-OR-0.1	Lab ID:	92691209004	Collected: 10/	03/23 11:	50 Received: 10	0/03/23 15:46 N	latrix: Water			
Parameters	Results	Units	Report Lin	it DF	Prepared	Analyzed	CAS No.	Qual		
6010D ATL ICP	Analytical	Method: EPA 60	010D Preparation	Method:	EPA 3010A					
	Pace Anal	ytical Services -	Peachtree Corne	ers, GA						
Boron	NE	D mg/L	0.0	40 1	10/10/23 11:20	10/23/23 23:56	7440-42-8			
Calcium	7.4	4 mg/L		.0 1	10/10/23 11:20	10/23/23 23:56	7440-70-2	L2		
Magnesium	2.0	0 mg/L	0.0	50 1	10/10/23 11:20	10/23/23 23:56	7439-95-4			
Potassium	3.:	3 mg/L	0.	50 1	10/10/23 11:20	10/24/23 20:41	7440-09-7			
Sodium	9.9	5 mg/L		.0 1	10/10/23 11:20	10/24/23 20:41	7440-23-5			
6020 MET ICPMS	Analytical	Method: EPA 60	20B Preparatior	Method:	EPA 3005A					
	Pace Anal	Pace Analytical Services - Peachtree Corners, GA								
Antimony	NE	D mg/L	0.00	30 1	10/07/23 09:18	10/10/23 16:18	7440-36-0			
Arsenic	NE	D mg/L	0.00	50 1	10/07/23 09:18	10/10/23 16:18	7440-38-2			
Barium	0.02 <sup>2</sup>	1 mg/L	0.00	50 1	10/07/23 09:18	10/10/23 16:18	7440-39-3			
Beryllium	NE	D mg/L	0.000	50 1	10/07/23 09:18	10/10/23 16:18	7440-41-7			
Cadmium	NE	D mg/L	0.000	50 1	10/07/23 09:18	10/10/23 16:18	7440-43-9			
Chromium	NE	D mg/L	0.00	50 1	10/07/23 09:18	10/10/23 16:18	7440-47-3			
Cobalt	NE	D mg/L	0.00	50 1	10/07/23 09:18	10/10/23 16:18	7440-48-4			
Lead	NE	D mg/L	0.00	10 1	10/07/23 09:18	10/10/23 16:18	7439-92-1			
Lithium	NE	D mg/L	0.0	30 1	10/07/23 09:18	10/10/23 16:18	7439-93-2	L1		
Molybdenum	NE	D mg/L	0.0	10 1	10/07/23 09:18	10/10/23 16:18	7439-98-7			
Selenium	NE	D mg/L	0.00	50 1	10/07/23 09:18	10/10/23 16:18	7782-49-2			
Thallium	NE	D mg/L	0.00	10 1	10/07/23 09:18	10/10/23 16:18	7440-28-0			
7470 Mercury	Analytical	Method: EPA 74	70A Preparatior	Method:	EPA 7470A					
	Pace Analytical Services - Peachtree Corners, GA									
Mercury	NE	D mg/L	0.000	20 1	10/12/23 12:00	10/12/23 17:05	7439-97-6			
2540C Total Dissolved Solids	Analytical	Method: SM 254	40C-2015							
	Pace Anal	ytical Services -	Peachtree Corne	ers, GA						
Total Dissolved Solids	72.0	<b>0</b> mg/L	25	5.0 1		10/04/23 14:10				
2320B Alkalinity	Analytical	Method: SM 232	20B-2011							
-	Pace Anal	ytical Services -	Asheville							
Alkalinity,Bicarbonate (CaCO3)	33.4	1 mg/L	ł	5.0 1		10/09/23 18:04				
Alkalinity, Total as CaCO3	33.4	0		5.0 1		10/09/23 18:04				
9056 IC anions 28 Days	Analytical	Method: EPA 90	)56A							
,-	-	ytical Services -								
Chloride	8.9	9 mg/L		.0 1		10/04/23 02:49	16887-00-6			
Fluoride	NE	0		10 1		10/04/23 02:49				
Sulfate	6.4	0	-	.0 1		10/04/23 02:49				

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Project: Plant Arkwright-CCR Ash Pond-Revised Report

Pace Project No.: 92691209

	Tiant Aikwiight OOK Asii Tohu	Revised Report
<u>.</u> .	02601200	

Sample: ARK-OR-0.3	Lab ID:	92691209005	Collected: 10/03	/23 10:12	Received: 10	0/03/23 15:46 N	latrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual		
6010D ATL ICP	Analytical	Method: EPA 60	010D Preparation N	lethod: E	PA 3010A					
	Pace Anal	ytical Services -	Peachtree Corners	, GA						
Potassium	3.	5 mg/L	0.50	1	10/10/23 11:20	10/24/23 20:46	7440-09-7			
Sodium	9.1	1 mg/L	1.0	1	10/10/23 11:20	10/24/23 20:46	7440-23-5			
Boron	NE	) mg/L	0.040	1	10/10/23 11:20	10/24/23 00:01	7440-42-8			
Calcium	7.2	2 mg/L	1.0	1	10/10/23 11:20	10/24/23 00:01	7440-70-2	L2		
Magnesium	2.0	<b>0</b> mg/L	0.050	1	10/10/23 11:20	10/24/23 00:01	7439-95-4			
6020 MET ICPMS	Analytical	Method: EPA 60	20B Preparation M	lethod: E	PA 3005A					
	Pace Anal	ytical Services -	Peachtree Corners	, GA						
Antimony	NE	) mg/L	0.0030	1	10/07/23 09:18	10/10/23 16:23	7440-36-0			
Arsenic	NE	) mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:23	7440-38-2			
Barium	0.020	<b>)</b> mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:23	7440-39-3			
Beryllium	NE	D mg/L	0.00050	1	10/07/23 09:18	10/10/23 16:23	7440-41-7			
Cadmium	NE	D mg/L	0.00050	1	10/07/23 09:18	10/10/23 16:23	7440-43-9			
Chromium	NE	) mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:23	7440-47-3			
Cobalt	NE	) mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:23	7440-48-4			
Lead	NE	) mg/L	0.0010	1	10/07/23 09:18	10/10/23 16:23	7439-92-1			
Lithium	NE	) mg/L	0.030	1	10/07/23 09:18	10/10/23 16:23	7439-93-2	L1		
Molybdenum	NE	) mg/L	0.010	1	10/07/23 09:18	10/10/23 16:23	7439-98-7			
Selenium	NE	) mg/L	0.0050	1	10/07/23 09:18	10/10/23 16:23	7782-49-2			
Thallium	NE	) mg/L	0.0010	1	10/07/23 09:18	10/10/23 16:23	7440-28-0			
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
	Pace Analytical Services - Peachtree Corners, GA									
Mercury	NE	D mg/L	0.00020	1	10/12/23 12:00	10/12/23 17:08	7439-97-6			
2540C Total Dissolved Solids	Analytical	Method: SM 254	40C-2015							
	Pace Anal	ytical Services -	Peachtree Corners	, GA						
Total Dissolved Solids	66.	<b>)</b> mg/L	25.0	1		10/04/23 14:10				
2320B Alkalinity	Analytical	Method: SM 232	20B-2011							
	Pace Anal	ytical Services -	Asheville							
Alkalinity, Bicarbonate (CaCO3)	32.4	4 mg/L	5.0	1		10/09/23 18:10				
Alkalinity, Total as CaCO3	32.4	0	5.0			10/09/23 18:10				
9056 IC anions 28 Days	Analytical	Method: EPA 90	)56A							
	Pace Analytical Services - Asheville									
Chloride	9.0	<b>)</b> mg/L	1.0	1		10/04/23 03:03	16887-00-6			
Fluoride	NE	0	0.10			10/04/23 03:03				
			0.10	•		10/04/23 03:03				

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Project: Plant Arkwright-CCR Ash Pond-Revised Report

Sample: ARK-OR+0.25	Lab ID:	92691209006	Collected:	10/03/2	3 12:12	Received: 10	)/03/23 15:46	Matrix: Water	
Parameters	Results	Units	Repor	rt Limit	DF	Prepared	Analyzed	CAS No.	Qua
6010D ATL ICP	Analytical	Method: EPA 60	010D Prepa	ration Me	thod: EF	PA 3010A			
	Pace Analy	vtical Services -	Peachtree (	Corners,	GA				
Boron	NE	) mg/L		0.040	1	10/10/23 11:20	10/24/23 00:06	6 7440-42-8	
Calcium	7.2	2 mg/L		1.0	1	10/10/23 11:20	10/24/23 00:06	6 7440-70-2	L2
Magnesium	2.0	) mg/L		0.050	1	10/10/23 11:20	10/24/23 00:00	6 7439-95-4	
Potassium	3.4	4 mg/L		0.50	1	10/10/23 11:20	10/24/23 20:5	7440-09-7	
Sodium	9.2	2 mg/L		1.0	1	10/10/23 11:20	10/24/23 20:57	7440-23-5	
6020 MET ICPMS	-	Method: EPA 60	•			PA 3005A			
	Pace Analy	vtical Services -	Peachtree (	Corners,	GA				
Antimony	NE	) mg/L		0.0030	1	10/07/23 09:18	10/10/23 16:27	7440-36-0	
Arsenic	NE	) mg/L		0.0050	1	10/07/23 09:18	10/10/23 16:27	7440-38-2	
Barium	0.019	9 mg/L		0.0050	1	10/07/23 09:18	10/10/23 16:27	7440-39-3	
Beryllium	NE	) mg/L	C	0.00050	1	10/07/23 09:18	10/10/23 16:27	7440-41-7	
Cadmium	NE	) mg/L	C	0.00050	1	10/07/23 09:18	10/10/23 16:27	7440-43-9	
Chromium	NE	) mg/L		0.0050	1	10/07/23 09:18	10/10/23 16:27	7440-47-3	
Cobalt	NE	) mg/L		0.0050	1	10/07/23 09:18	10/10/23 16:27	7440-48-4	
Lead	NE	) mg/L		0.0010	1	10/07/23 09:18	10/10/23 16:27	7439-92-1	
Lithium	NE	) mg/L		0.030	1	10/07/23 09:18	10/10/23 16:27	7439-93-2	L1
Molybdenum	NE	) mg/L		0.010	1	10/07/23 09:18	10/10/23 16:27	7439-98-7	
Selenium	NE	) mg/L		0.0050	1	10/07/23 09:18	10/10/23 16:27	7782-49-2	
Thallium	NE	) mg/L		0.0010	1	10/07/23 09:18	10/10/23 16:27	7440-28-0	
7470 Mercury	Analytical	Method: EPA 74	170A Prepar	ration Me	thod: EF	PA 7470A			
-	Pace Analy	ytical Services -	Peachtree (	Corners,	GA				
Mercury	NE	) mg/L	C	0.00020	1	10/12/23 12:00	10/12/23 17:10	) 7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 254	40C-2015						
	Pace Analy	ytical Services -	Peachtree (	Corners,	GA				
Total Dissolved Solids	67.0	) mg/L		25.0	1		10/04/23 14:10	)	
2320B Alkalinity	Analytical	Method: SM 232	20B-2011						
	-	vtical Services -							
Alkalinity,Bicarbonate (CaCO3)	33.1	l mg/L		5.0	1		10/09/23 18:16	6	
Alkalinity, Total as CaCO3	33.1			5.0	1		10/09/23 18:16	3	
9056 IC anions 28 Days	Analytical	Method: EPA 90	)56A						
	2	vtical Services -							
Chloride	9.0	) mg/L		1.0	1		10/04/23 03:47	7 16887-00-6	
Fluoride	NE	0		0.10	1		10/04/23 03:47		
Sulfate	6.5	0		1.0	1		10/04/23 03:47		



QC Batch:	8052	46		Ana	lysis Meth	od: E	PA 6010D						
QC Batch Method:	EPA :	3010A		Ana	Iysis Desc	ription: 6	010D ATL						
				Lab	oratory:	Р	ace Analyt	ical Servic	es - Peacht	ree Corne	rs, GA		
Associated Lab Sar	mples:	926912090	001, 9269120900		,		•				-, -		
METHOD BLANK:	41698	58			Matrix: \	Nater							
Associated Lab Sar	mples:	926912090	001, 9269120900	3, 926912	09004, 92	691209005, 9	26912090	06					
				Bla	ink	Reporting							
Parar	neter		Units	Re	sult	Limit	Analy	zed	Qualifiers	5			
Boron			mg/L		ND	0.040	10/23/23	3 23:04					
Calcium			mg/L		ND	1.0	10/23/23	3 23:04					
Magnesium			mg/L		ND	0.050							
Potassium			mg/L		ND	0.50							
Sodium			mg/L		ND	1.0	10/24/23	3 19:55					
LABORATORY CO	NTROL	SAMPLE:	4169859										
				Spike	E L	CS	LCS	% R	ec				
Parar	neter		Units	Conc	. Re	esult	% Rec	Limi	ts C	Qualifiers			
Boron			mg/L		1	0.99	99	) 8	30-120		_		
Calcium			mg/L		1	.77J	77	7 8	30-120 L2				
Magnesium			mg/L		1	0.94	94	¥ 4	30-120				
Potassium			mg/L		1	1.1	111	1 8	30-120				
Sodium			mg/L		1	1.1	112	2 8	30-120				
MATRIX SPIKE & N			LICATE: 4169	860		4169861							
				MS	MSD								
			92691209001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
_	r	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
Paramete		mg/L	ND	1	-	I 1.1	1.1	105	104	75-125	1	20	
Boron		mg/L	12.9	1	1	l 15.1	13.9	219	102	75-125	8	20	M0
Boron		0		1	1	l 7.2	6.4	174	96	75-125	11	20	M1
Boron Calcium Magnesium		mg/L	5.5										
		-	5.5 2.7 11.2	1	-		3.9 12.3	106 66	122 105	75-125 75-125	4 3		

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.



QC Batch: 80994 QC Batch Method: EPA 30			Analy	vsis Metho vsis Descr ratory:	iption: 6	PA 6010D 010D ATL ace Analyti	cal Servic	es - Peacht	ree Corne	rs, GA		
Associated Lab Samples:	926912090	02		,						-, -		
METHOD BLANK: 4193423	3			Matrix: W	/ater							
Associated Lab Samples:	926912090	02										
			Blan		Reporting							
Parameter		Units	Resu	ult	Limit	Analy	zed	Qualifiers	;			
Boron		mg/L		ND	0.040	11/02/23	18:54					
Calcium		mg/L		ND	1.0							
Magnesium		mg/L		ND	0.050							
Potassium		mg/L		ND	0.50							
Sodium		mg/L		ND	1.0	11/02/23	16.04					
LABORATORY CONTROL S	AMPLE:	4193424										
			Spike	LC	CS	LCS	% R	ес				
Parameter		Units	Conc.	Re	sult	% Rec	Limi	ts C	Qualifiers			
Boron		mg/L		1	0.95	95	5 8	30-120		_		
Calcium		mg/L		1	1.0	100		30-120				
Magnesium		mg/L		1	1.0	103		30-120				
Potassium		mg/L		1	1.0	100		30-120				
Sodium		mg/L		1	.99J	99	) {	30-120				
MATRIX SPIKE & MATRIX S	PIKE DUPL	ICATE: 4193	425		4193426							
			MS	MSD								
Parameter	Units	92691209002 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
Boron	mg/L	0.045	1	1	1.1	1.0	102	100	75-125	2	20	
Calcium	mg/L	15.0	1	1	16.3	15.6	125	58	75-125	4	20	M1
Magnesium	mg/L	6.4	1	1	7.6	7.3	117	91	75-125	3	20	
Potassium	mg/L	2.8	1	1	3.8	3.8	103	102	75-125	0	20	
Sodium	mg/L	11.3	1	1	12.6	12.3	132	94	75-125	3	20	M1

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#### **REPORT OF LABORATORY ANALYSIS**

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Project:

#### **QUALITY CONTROL DATA**

Plant Arkwright-CCR Ash Pond-Revised Report

QC Batch: 804	826		Analy	sis Meth	od: E	PA 6020B						
QC Batch Method: EPA	A 3005A		Analy	/sis Desc	ription: 60	020 MET						
				ratory:		ace Analvti	cal Servic	es - Peacht	tree Corne	rs. GA		
Associated Lab Samples:	926912090	01, 9269120900		•						-, -		
METHOD BLANK: 4168	100			Matrix: N	Water							
Associated Lab Samples:		01 0260120000	0260120			260120000	5 02601	200006				
Associated Lab Samples.	920912090	01, 9269120900				209120900	5, 920912	209000				
Parameter		Units	Blar Res		Reporting Limit	Analy	zed	Qualifiers	\$			
								Quaimer				
Antimony		mg/L		ND	0.0030	10/10/23						
Arsenic		mg/L		ND	0.0050							
Barium		mg/L		ND	0.0050							
Beryllium		mg/L		ND	0.00050							
Cadmium		mg/L		ND	0.00050							
Chromium		mg/L		ND	0.0050							
Cobalt		mg/L		ND	0.0050							
Lead		mg/L		ND	0.0010							
Lithium		mg/L		ND	0.030							
Molybdenum		mg/L		ND	0.010	10/10/23	15:19					
Selenium		mg/L		ND	0.0050	10/10/23	15:19					
Thallium		mg/L		ND	0.0010	10/10/23	15:19					
Parameter		Units	Spike Conc.		CS esult	LCS % Rec	% R Lim		Qualifiers			
Antimony		mg/L	0.		0.11	106	·	80-120		_		
Arsenic		mg/L	0.		0.10	100		80-120 80-120				
Barium		mg/L	0.		0.10	102		80-120				
Beryllium		mg/L	0.		0.10	116		80-120 80-120				
Cadmium		mg/L	0.		0.12	105		80-120				
Chromium		mg/L	0.		0.11	105		80-120				
Cobalt		mg/L	0.		0.11	100		80-120				
Lead		mg/L	0.		0.11	100		80-120				
Lithium		mg/L	0.		0.13	129		80-120 L1				
Molybdenum		mg/L	0.		0.10	104		80-120 21				
Selenium		mg/L	0.		0.10	104		80-120				
Thallium		mg/L	0.		0.10	103		80-120				
MATRIX SPIKE & MATRIX		_ICATE: 4168	102		4168103							
			MS	MSD								
		92687886008	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
			•									
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Parameter	Units mg/L		Conc. 0.1	Conc. 0.1		0.10	% Rec 108		Limits 75-125	RPD 4		Qual
		Result			0.11			104			20	Qual
Antimony	mg/L	Result ND	0.1	0.1	0.11	0.10	108	104	75-125 75-125	4	20 20	

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

0.10

0.097

102

97

75-125

5 20

0.1

ŇD

0.1

mg/L

#### **REPORT OF LABORATORY ANALYSIS**

Beryllium

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Project:Plant Arkwright-CCR Ash Pond-Revised ReportPace Project No.:92691209

MATRIX SPIKE & MATRIX	SPIKE DUPLIC	CATE: 4168	102		4168103							
			MS	MSD								
	9	2687886008	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Cadmium	mg/L	ND	0.1	0.1	0.11	0.10	110	102	75-125	8	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.099	105	99	75-125	5	20	
Cobalt	mg/L	162 ug/L	0.1	0.1	0.27	0.26	107	95	75-125	5	20	
Lead	mg/L	ND	0.1	0.1	0.10	0.099	104	99	75-125	6	20	
Lithium	mg/L	ND	0.1	0.1	0.12	0.12	113	108	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	105	101	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	104	101	75-125	4	20	
Thallium	mg/L	2.2 ug/L	0.1	0.1	0.11	0.10	103	98	75-125	6	20	

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



Project: Pace Project No.:	Plant Arkwright-CC 92691209	R Ash Pond-Rev	ised Report	t								
QC Batch:	805706		Analy	sis Metho	d:	EPA 7470A						
QC Batch Method:	EPA 7470A		Analy	sis Descri	ption:	7470 Mercu	iry					
			Labo	ratory:		Pace Analy	ical Servic	es - Peach	tree Corne	rs, GA		
Associated Lab San	nples: 926912090	001, 9269120900	2, 9269120	9003, 926	91209004,	926912090	05, 926912	209006				
METHOD BLANK:	4172220			Matrix: W	/ater							
Associated Lab San	nples: 926912090	001, 9269120900	2, 9269120	9003, 926	91209004,	926912090	05, 926912	209006				
			Blar	ık	Reporting							
Paran	neter	Units	Res	ult	Limit	Anal	yzed	Qualifier	S			
Mercury		mg/L		ND	0.0002	20 10/12/2	3 16:01					
LABORATORY CON	NTROL SAMPLE:	4172221			-		_					
-			Spike	LC	-	LCS	% R		0 117			
Paran	neter	Units	Conc.	Res	Sult	% Rec	Lim	ts	Qualifiers			
Mercury		mg/L	0.002	5	0.0021	8	5 8	80-120				
MATRIX SPIKE & M	IATRIX SPIKE DUP	LICATE: 41722	222		417222	3						
			MS	MSD								
		92689717009	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0026	0.0023	99	87	75-125	12	20	

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



Project:	Plant A	kwright-CO	CR Ash Pond-Revis	ed Report						
Pace Project No.:	926912	209								
QC Batch:	8041	06		Analysis M	lethod:	SN	M 2540C-201	5		
QC Batch Method:	SM 2	540C-2015		Analysis D	escription:	25	640C Total Dis	solved Solids		
				Laboratory	/:	Pa	ace Analytical	Services - Pe	achtre	e Corners, GA
Associated Lab Sar	nples:	92691209	001, 92691209002,	92691209003	, 9269120900	04, 92	2691209005,	92691209006		
METHOD BLANK:	41645	14		Matr	ix: Water					
Associated Lab Sar	nples:	92691209	001, 92691209002,	92691209003	, 9269120900	04, 92	2691209005,	92691209006		
				Blank	Reportin					
Paran	neter		Units	Result	Limit	•	Analyzed	l Qual	ifiers	
Total Dissolved Soli	ds		mg/L	N	D	25.0	10/04/23 14	:01		_
LABORATORY CO	NTROL	SAMPLE:	4164515							
				Spike	LCS		LCS	% Rec		
Paran	neter		Units	Conc.	Result		% Rec	Limits	Qu	Jalifiers
Total Dissolved Soli	ds		mg/L	400	381		95	80-120		
SAMPLE DUPLICA	TE: 41	64516								
				92691004001				Max		
Paran	neter		Units	Result	Result		RPD	RPD		Qualifiers
Total Dissolved Soli	ds		mg/L	22	8	208		9	10	
SAMPLE DUPLICA	TE: 41	64517								
				92691209003				Max		
Parar	neter		Units	Result	Result		RPD	RPD		Qualifiers

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.



Project:	Plant Arkw	right-CC	R Ash Pond-Rev	ised Report										
Pace Project No.:	92691209													
QC Batch:	804990			Analy	sis Method	d:	S	M 2320B-2	2011					
QC Batch Method:	SM 2320	B-2011		Analy	sis Descri	ption:	23	320B Alkal	linity					
				Labo	ratory:		Pa	ace Analyt	ical Service	es - Ashevi	lle			
Associated Lab Sar	nples: 92	6912090	001, 9269120900	2, 9269120	9003, 9269	9120900	94, 92	26912090	05, 926912	09006				
METHOD BLANK:	4168576				Matrix: W	ater								
Associated Lab Sar	nples: 92	6912090	001, 9269120900	2, 9269120	9003, 9269	9120900	)4, 92	26912090	05, 926912	09006				
				Blan	k l	Reportin	g							
Paran	neter		Units	Resu	ult	Limit		Analy	yzed	Qualifier	s			
Alkalinity, Total as C			mg/L		ND		5.0	10/09/2	3 16:49					
Alkalinity,Bicarbona	te (CaCO3)		mg/L		ND		5.0	10/09/2	3 16:49					
LABORATORY COI	NTROL SAM	IPLE:	4168577											
				Spike	LC	S		LCS	% Re	ec				
Paran	neter		Units	Conc.	Res	sult		% Rec	Limit	is (	Qualifiers	_		
Alkalinity, Total as C	CaCO3		mg/L	5	0	52.5		10	5 8	0-120				
LABORATORY COI	NTROL SAM	IPLE:	4168578											
				Spike	LC	S		LCS	% Re					
Paran	neter		Units	Conc.	Res	sult		% Rec	Limit	s (	Qualifiers	_		
Alkalinity, Total as C	CaCO3		mg/L	5	0	50.9		10	2 8	0-120				
MATRIX SPIKE & M	IATRIX SPI	KE DUPI	LICATE: 4168	579		4168	580							
				MS	MSD									
_			92691209001	Spike	Spike	MS		MSD	MS	MSD	% Rec		Max	
Parameter	r	Units	Result	Conc.	Conc.	Result	: 	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Alkalinity, Total as C	aCO3	mg/L	60.9	50	50	1	11	112	101	103	80-120	1	25	
MATRIX SPIKE & M	IATRIX SPI	KE DUPI	LICATE: 4168	581		4168	582							
				MS	MSD									
		11.2	92691209002	Spike	Spike	MS		MSD	MS	MSD	% Rec	000	Max	~ ·
Parameter		Units	Result	Conc.	Conc.	Result	: 	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Alkalinity, Total as C	aCO3	mg/L	61.8	50	50	1	14	112	104	101	80-120	2	25	

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#### **REPORT OF LABORATORY ANALYSIS**

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Project: Pace Project No.:	Plant Arkwright- 92691209	CCR Ash Pond-Re	vised Repor	rt								
QC Batch:	803939		Anal	ysis Metho	d: I	EPA 9056A						
QC Batch Method:	EPA 9056A		Anal	ysis Descri	ption:	9056 IC anio	ons 28 Day	/S				
			Labo	oratory:	I	Pace Analyt	ical Servic	es - Ashevi	le			
Associated Lab Sar	nples: 926912	09001, 926912090	02, 9269120	09003, 926	91209004,	9269120900	05, 926912	209006				
METHOD BLANK:	4163719			Matrix: W	ater							
Associated Lab Sar	nples: 926912	09001, 926912090	02, 9269120	09003, 926	91209004,	926912090	05, 926912	209006				
			Bla	nk	Reporting							
Parar	neter	Units	Res	sult	Limit	Analy	/zed	Qualifiers	6			
Chloride		mg/L		ND	1.	0 10/04/23	3 00:53		-			
Fluoride		mg/L		ND	0.1							
Sulfate		mg/L		ND	1.	0 10/04/23	3 00:53					
LABORATORY CO	NTROL SAMPLE	4163720										
Parar	neter	Units	Spike Conc.	LC Res		LCS % Rec	% R Limi		Qualifiers			
	neter								zuaimers	_		
Chloride		mg/L		50 5	49.2 2.5	98 99		90-110 90-110				
Fluoride Sulfate		mg/L mg/L		.ə 50	2.5 49.2	98		90-110 90-110				
Guilate		ilig/E		50	45.2	30	, , , , , , , , , , , , , , , , , , ,	50-110				
MATRIX SPIKE & M	IATRIX SPIKE D	UPLICATE: 416	3721		4163722	<u>.</u>						
			MS	MSD								
		92690697022	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	<u> </u>
Paramete	r Ur	its Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	m	•		50	51.3	50.9	97	96	90-110	1	-	
Fluoride	m	•		2.5	2.6	2.5	100	99	90-110	1		
Sulfate	mç	g/L 1.4	50	50	49.4	49.2	96	96	90-110	0	10	
MATRIX SPIKE & N	IATRIX SPIKE D	UPLICATE: 416	3723		4163724							
			MS	MSD								
		92691157017	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	r Ur	its Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mį	g/L 11.1	50	50	58.5	58.6	95	95	90-110	0	10	
Fluoride	m	g/L ND	2.5	2.5	2.6	2.6	103	103	90-110	0	10	
Sulfate	mç	a/L 5.8	50	50	52.9	53.3	94	95	90-110	1	10	

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### **REPORT OF LABORATORY ANALYSIS**

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#### QUALIFIERS

 Project:
 Plant Arkwright-CCR Ash Pond-Revised Report

 Pace Project No.:
 92691209

#### 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

- L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

ace

#### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:Plant Arkwright-CCR Ash Pond-Revised ReportPace Project No.:92691209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92691209001	ARK-BC-0.3	EPA 3010A	805246	EPA 6010D	805325
92691209002	ARK-BC-0.1	EPA 3010A	809947	EPA 6010D	810055
92691209003	ARK-OR-0.8	EPA 3010A	805246	EPA 6010D	805325
92691209004	ARK-OR-0.1	EPA 3010A	805246	EPA 6010D	805325
92691209005	ARK-OR-0.3	EPA 3010A	805246	EPA 6010D	805325
92691209006	ARK-OR+0.25	EPA 3010A	805246	EPA 6010D	805325
92691209001	ARK-BC-0.3	EPA 3005A	804826	EPA 6020B	804860
92691209002	ARK-BC-0.1	EPA 3005A	804826	EPA 6020B	804860
92691209003	ARK-OR-0.8	EPA 3005A	804826	EPA 6020B	804860
92691209004	ARK-OR-0.1	EPA 3005A	804826	EPA 6020B	804860
92691209005	ARK-OR-0.3	EPA 3005A	804826	EPA 6020B	804860
92691209006	ARK-OR+0.25	EPA 3005A	804826	EPA 6020B	804860
92691209001	ARK-BC-0.3	EPA 7470A	805706	EPA 7470A	805878
92691209002	ARK-BC-0.1	EPA 7470A	805706	EPA 7470A	805878
92691209003	ARK-OR-0.8	EPA 7470A	805706	EPA 7470A	805878
92691209004	ARK-OR-0.1	EPA 7470A	805706	EPA 7470A	805878
92691209005	ARK-OR-0.3	EPA 7470A	805706	EPA 7470A	805878
92691209006	ARK-OR+0.25	EPA 7470A	805706	EPA 7470A	805878
92691209001	ARK-BC-0.3	SM 2540C-2015	804106		
92691209002	ARK-BC-0.1	SM 2540C-2015	804106		
92691209003	ARK-OR-0.8	SM 2540C-2015	804106		
92691209004	ARK-OR-0.1	SM 2540C-2015	804106		
92691209005	ARK-OR-0.3	SM 2540C-2015	804106		
92691209006	ARK-OR+0.25	SM 2540C-2015	804106		
92691209001	ARK-BC-0.3	SM 2320B-2011	804990		
92691209002	ARK-BC-0.1	SM 2320B-2011	804990		
92691209003	ARK-OR-0.8	SM 2320B-2011	804990		
92691209004	ARK-OR-0.1	SM 2320B-2011	804990		
92691209005	ARK-OR-0.3	SM 2320B-2011	804990		
92691209006	ARK-OR+0.25	SM 2320B-2011	804990		
92691209001	ARK-BC-0.3	EPA 9056A	803939		
92691209002	ARK-BC-0.1	EPA 9056A	803939		
92691209003	ARK-OR-0.8	EPA 9056A	803939		
92691209004	ARK-OR-0.1	EPA 9056A	803939		
92691209005	ARK-OR-0.3	EPA 9056A	803939		
92691209006	ARK-OR+0.25	EPA 9056A	803939		

	ARK-CCR-ASSMT-202392 10.03		App. IV - Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti + Hg	ADDITIONAL COMMENTS	12	EL.	10	8	39	7	8 ARK-OR+0.25	5 ARK-OR-0.3	4 ARK-OR-0.1	3 ARK-OR-0.8	2 ARK-BC-0.1	1 ARK-BC-0.3	SAMPLE ID One Character per box. (A-Z, 0-97, -) Sample ids must be unique	3		64-6584 Fax:	kelley.shape@arcadis.com		Company: ARCADIS - Atlanta	Section A Required Cilent Information:	Pace Analytical
S PR	~	Ą	1 M	RELINGUISHEDBY / AFFILLATION							MGG 14/5/13 1212	WGG 4415 1012	WGG 4423 1150	wee 1/3/23 0935	wgg /s/23 1121	WGG 1/5/23 1245	These P William VIT	les to left) =COMP)			Purchase Order #: GPC82474-0003	Copy To: Ben Hodges, Joju Abraham	Report To: Kelley Sharpe, Warren Johnson	Section B Required Project Information:	
SAMPLER HAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:			Acardy 1/2/23 1546	TION DATE TIME			-				5 X	5 X	5 X	5 X	ui X	5 X	SAMPLE TEMP AT COLLECT		14 CONTRACT IN THE REAL PROPERTY INTERNAL PROPERTY INT					Section C Invoice Information:	CHAIN-OF-CUSTODY / Anal The Chain-of-Custody is a LEGAL DOCUM
Giangte G			1741-77E	NOUTVITULAY ( A GALAGOON							×	×	×	×	×	x	HNO3 HCI NaOH Na2S2O3 Methanol Other Analysios Test Total/Bicarb Alkalinity Cl, F, SO4	Preservatives	15836	15		me:		mation:	DY / Analytical Requination of the second se
DATE Signed:			14-5-23 244	ON DATE TIME							× × × ×	x x x x	X X X X X	× × × ×	× × × ×	x x x x x	CI, F, SU4 TDS App. 111 Metals - B, Ca App. 17 Metals (Client List) Metals - Mg, Na, K Radium 226/228		Requer 92691260			W0# 0			Iytical Request Document ENT. All relevant fields must be completed accurately.
TEMP in C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)				IE SAMPLE CONDITIONS													Residual Chlorine (Y/N)				607 TEON	0001000		Page : 1 Of 1	ately.

Effective Date: 11/14/2022					the state of the
ory receiving samples:					1 miles
ville 🔄 Eden 🗌 Greenwood 🛄	Huntersville 📋	Raleigh[	Mee	chanicsville Atlanta Kerne	rsville
r ple Condition Client Name:				WO#: 92691209	
pon Receipt Accordia	-Atlent.	P	roject #:	BN. 11P Due Date: 1	0/11/23
	-Atlente		ent	PTI: IN	0/ 14/
mmercial Pace	Other:			CLIENT: GA-ArcadAt1	
w Seal Present? Yes	als Intact? Yes	_ ₩		La contra de la co	-
		_y.,		Date/Initials Person Examining Contents://	13-23 2
Material: Bubble Wrap	Bubble Bags None	e 🗂 Ot	her	Biological Tissue Frozen?	
nometer:				Yes No NA	
PIR Gun ID: 083	Type of Ice:	]Wet 🔲 BI	ue 🗍	None	
Correction Fac			<b>T</b> a	a should be about fraction to C <sup>o</sup> C	
rTemp: Add/Subtract	7	_		np should be above freezing to 6°C Samples out of temp criteria. Samples on ice, o	ooling process
r Temp Corrected (°C):	<u>&gt;</u>		-	has begun	
Regulated Soil ( N/A, water sample) samples originate in a quarantine zone within t	he United States: CA, NY.	or SC	Dids	samples originate from a foreign source (internati	ionally,
neck maps)? Yes No	8000 ( 1000			uding Hawaii and Puerto Rico)? Yes No	
Chain of Custody Present?	Yes No		1.	Comments/Discrepancy:	19
Samples Arrived within Hold Time?			2.		N.
Short Hold Time Analysis (<72 hr.)?	Ves 🖉 No		3.	the state of the s	No. of Concession, Name
Rush Turn Around Time Requested?	🗋 Yes 🗔 🕅 o	⊡n/A	4.	Window	
Sufficient Volume?	Øres □No		5.		
Correct Containers Used?	Yes No		6.	and the second se	
-Pace Containers Used?	Yes No	□N/A	-		
Containers Intact?	Pres No		7.		1970 1
Dssolved analysis: Samples Field Filtered? Sample Labels Match COC?	YesNo esNo		<u>8.</u> 9.		
				querra	
-Includes Date/Time/ID/Analysis Matrix:	$\mathcal{V}_{}$			in the second	18
Headspace in VOA Vials (>5-6mm)?	Yes No		10.	A POPULATION	
Trip Blank Present?	Yes No		11.		
Tip Blank Custody Seals Present?	Yes No				1
IENTS/SAMPLE DISCREPANCY				Field Data Required?	No
1			Lot ID of s	plit containers:	<u> </u>
NOTIFICATION/RESOLUTION					
				1	
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		Date/Tim	e:		
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n contacted:					
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Pace	DC#_Title: I	ENV-FRM-HUN	1-0083 v02_Sample	Condition	n Upon Rece	əipt	
ARALYTICAL SERVICES	Effective Date	: 11/14/2022					
			nation is verified and	Project #	WO# : 9	9269120	9
ceptions: VOA, Co Bottom half c	oliform, TOC, Oil and	r preservation sar Grease, DRO/8015 (wa umber of bottles :es for chlorine			PM: MP CLIENT: GA	Due Date: ArcadAt1	10/11/23
Control     BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)       Control     Closed (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)       BP1U-1 liter Plastic Unpreserved (N/A)       BP4S-125 mL Plastic H2504 (pH < 2) (Cl-)       BP4S-125 mL plastic H203 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)       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         Iter Amber HCl (pH < 2)	DG9H-40 mL VOA HCI (N/A)           VG9T-40 mL VOA HCI (N/A)           VG91L40 mL VOA HCI (N/A)	DG9V-40 mL VOA H3PO4 (N/A)       KP7U-50 mL VOA H3PO4 (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)       SP2T-250 mL Sterile Plastic (N/A - lab)       SP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGOU-100 mL Amber Unpreserved (N/A) (CI-)           AGOU-20 mL Scintillation vials (N/A)           DG9U-40 mL Amber Unpreserved vials (N/A)
Sample ID T	ype of Preservative	pH upon receipt	justment Log for Pre	served Sa		nount of Preservative	Lot #
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2023 Semi-Annual Groundwater Monitoring Report Plant Arkwright Ash Pond 1 Landfill

# 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 9 through August 11, 2023, 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 Total Metals 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

Eleven (11) groundwater samples, two (2) field blanks, two (2) equipment blank, and two (2) field duplicate samples were analyzed for one or more of the analyses listed above. Table 1 lists the field identifications cross-referenced to laboratory identifications. Table 2 is a summary of qualified data. Tables 3a through 3e summarize field duplicate results.

# Analytical Results

The data packages contain a minimum of one quality control batch per analytical method analyzed. The quality control batch identifies the laboratory QC samples that correspond to the designated field samples. Not detected results are reported as less than the value of the method detection limit (MDL).

# Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody forms. The samples were received in the appropriate containers with the paperwork filled out properly. The laboratory sample condition upon receipt forms indicates all samples were received at temperature ranges of 0.0 to 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

• <u>Laboratory Method Blanks</u>. No contamination was detected in any of the laboratory method blanks.

<u>Field Blanks</u>. Field blanks were analyzed for the full suite of sample analyses and all analytes were not detected with the following exceptions:

# SDG 640869

- Chloride was detected in the blanks ARK-AP1-FB-01,ARK-AP1-EB-01 (10/09/2023), and ARK-AP1-EB-02 (10/10/2023) at a concentration above the laboratory RL. No qualification was required for associated sample results reported as greater than 10 times the blank concentration. Associated samples reported with detected concentrations less than 10 times the blank concentration have been qualified as estimated.
- Arsenic was detected in the blank ARK-AP1-FB-01, ARK-AP1-EB-01 (10/09/2023), and ARK-AP1-FB-02 (10/10/2023) at a concentration below the laboratory RL. No qualification was required for associated sample results reported as greater than 10 times the blank concentration. Associated samples reported with detected concentrations less than 10 times the blank concentration have been qualified as estimated.
- Calcium and molybdenum were detected in the blank ARK-AP1-EB-02 (10/10/2023) at a concentration below the laboratory RL. No qualification was required for associated sample results reported as greater than 10 times the blank concentration. Associated samples reported with detected concentrations less than 10 times the blank concentration have been qualified as estimated.

### SDG 640870

- Radium 226 was detected in the blank ARK-AP1-FB-01 (10/09/2023) at a concentration above the laboratory Reporting Limit (RL). No qualification was required for associated sample results reported as greater than 10 times the blank concentration.
- Radium 228 was detected in the blank ARK-AP1-FB-02 (10/10/2023) at a concentration below the laboratory Reporting Limit (RL). No qualification was required for associated sample results reported as greater than 10 times the blank concentration.

# Laboratory Control Samples

Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries met the laboratory acceptance criteria for all analyses.

# Matrix Spike/Matrix Spike Duplicates

Site-specific MS/MSD precision and accuracy results were within the laboratory acceptance criteria.

# Laboratory Duplicates

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

### SDG 640870

• The laboratory duplicate for radium 228 in sample ARK-AP1GWA-1 had a high RPD and has been qualified as estimated.

# 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 than two times the RL are also considered acceptable (qualified "A\*"). All field duplicate precision was considered acceptable.

# 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.

Field Identification	Laboratory Identification	SDG	Analyses	Sample Date
ARK-AP1GWA-1	640869001	640869	6020B, 7470A, 300, 2540C	10/09/2023
ARK-AP1-FB-01	640869002	640869	6020B, 7470A, 300, 2540C	10/09/2023
ARK-AP1GWA-2	640869003	640869	6020B, 7470A, 300, 2540C	10/09/2023
ARK-AP1-EB-01	640869004	640869	6020B, 7470A, 300, 2540C	10/09/2023
ARK-AP1PZ-1	640869005	640869	6020B, 7470A, 300, 2540C	10/09/2023
ARK-AP1PZ-2	640869006	640869	6020B, 7470A, 300, 2540C	10/09/2023
ARK-AP1-FD-01	640869007	640869	6020B, 7470A, 300, 2540C	10/09/2023
ARK-AP1PZ-4	640869008	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1-FB-02	640869009	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1PZ-3	640869010	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1PZ-8	640869011	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1PZ-5	640869012	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1-EB-02	640869013	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1PZ-7	640869014	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1PZ-10	640869015	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1PZ-11	640869016	640869	6020B, 7470A, 300, 2540C	10/10/2023

Table 1 – Cross-Reference between Laboratory and Field Identifications

Field Identification	Laboratory Identification	SDG	Analyses	Sample Date
ARK-AP1-FD-02	640869017	640869	6020B, 7470A, 300, 2540C	10/10/2023
ARK-AP1PZ-11	640869018	640869	6020B, 7470A, 300, 2540C	10/11/2023
ARK-AP1GWA-1	640870001	640870	903.1, 904	10/09/2023
ARK-AP1-FB-01	640870002	640870	903.1, 904	10/09/2023
ARK-AP1GWA-2	640870003	640870	903.1, 904	10/09/2023
ARK-AP1-EB-01	640870004	640870	903.1, 904	10/09/2023
ARK-AP1PZ-1	640870005	640870	903.1, 904	10/09/2023
ARK-AP1PZ-2	640870006	640870	903.1, 904	10/09/2023
ARK-AP1-FD-01	640870007	640870	903.1, 904	10/09/2023
ARK-AP1PZ-4	640870008	640870	903.1, 904	10/10/2023
ARK-AP1-FB-02	640870009	640870	903.1, 904	10/10/2023
ARK-AP1PZ-3	640870010	640870	903.1, 904	10/10/2023
ARK-AP1PZ-8	640870011	640870	903.1, 904	10/10/2023
ARK-AP1PZ-5	640870012	640870	903.1, 904	10/10/2023
ARK-AP1-EB-02	640870013	640870	903.1, 904	10/10/2023
ARK-AP1PZ-7	640870014	640870	903.1, 904	10/10/2023
ARK-AP1PZ-10	640870015	640870	903.1, 904	10/10/2023
ARK-AP1PZ-11	640870016	640870	903.1, 904	10/10/2023
ARK-AP1-FD-02	640870017	640870	903.1, 904	10/10/2023
ARK-AP1PZ-11	640870018	640870	903.1, 904	10/11/2023

# Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification / Code	Reason for Qualification
ARK-AP1GWA-2	Chloride	J+ / BFH	Detected in FB
ARK-AP1PZ-1	Chloride	J+ / BFH	Detected in FB
ARK-AP1PZ-2	Chloride	J+ / BFH	Detected in FB
ARK-AP1-FD-01	Chloride	J+ / BFH	Detected in FB
ARK-AP1GWA-1	Chloride	J+ / BFH	Detected in FB
ARK-AP1PZ-11	Chloride	J+ / BEH	Detected in EB
ARK-AP1-FD-02	Chloride	J+ / BEH	Detected in EB
ARK-AP1GWA-2	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-1	Arsenic	J+ / BEH	Detected in EB
ARK-AP1GWA-1	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-4	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-3	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-8	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-5	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-7	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-10	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-11	Arsenic	J+ / BEH	Detected in EB
ARK-AP1-FD-02	Arsenic	J+ / BEH	Detected in EB
ARK-AP1PZ-3	Molybdenum	J+ / BEH	Detected in EB
ARK-AP1PZ-11	Molybdenum	J+ / BEH	Detected in EB
ARK-AP1-FD-02	Molybdenum	J+ / BEH	Detected in EB
ARK-AP1GWA-1	Radium 226	J+ / BFH	Detected in FB
ARK-AP1GWA-2	Radium 226	J+ / BFH	Detected in FB
ARK-AP1PZ-1	Radium 226	J+ / BFH	Detected in FB
ARK-AP1PZ-2	Radium 226	J+ / BFH	Detected in FB
ARK-AP1-FD-01	Radium 226	J+ / BFH	Detected in FB

#### Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification / Code	Reason for Qualification
ARK-AP1PZ-4	Radium 228	J+/BFH	Detected in FB
ARK-AP1-FB-02	Radium 228	J+/BFH	Detected in FB
ARK-AP1PZ-3	Radium 228	J+/BFH	Detected in FB
ARK-AP1PZ-8	Radium 228	J+ / BFH	Detected in FB
ARK-AP1PZ-5	Radium 228	J+ / BFH	Detected in FB
ARK-AP1-EB-02	Radium 228	J+ / BFH	Detected in FB
ARK-AP1PZ-7	Radium 228	J+/BFH	Detected in FB
ARK-AP1PZ-10	Radium 228	J+/BFH	Detected in FB
ARK-AP1PZ-11	Radium 228	J+/BFH	Detected in FB
ARK-AP1-FD-02	Radium 228	J+/BFH	Detected in FB
ARK-AP1GWA-1	Radium 228	J / LD1	High LD RPD

BFH – Blank Field High – detected in the field blank (FB) above the RL

BLL – Blank Lab Low – detected in the lab method blank (MB) less than the RL

J+ – The analyte was detected in an associated blank; estimated data with a high bias.

#### Table 3a – Field Precision

Field		Sample Result	Duplicate		
Identification	Analyte	(mg/L)	Result (mg/L)	RPD <sup>a</sup>	Qualified
ARK-AP1PZ-2/	Sulfate	801	804	0.4%	A
ARK-AP1-FD-01	Chloride	2.98	3.06	2.6%	A
	Fluoride	0.262	0.283	7.7%	А
	Calcium	205	218	6.1%	А
	Barium	0.0300	0.0313	4.2%	А
	Cadmium	0.000689 J	0.000635 J	<5*RL, <2*RL	A*
	Cobalt	0.169	0.192	12.7%	А
	Lithium	0.0214	0.0238	<5*RL, <2*RL	A*
	Boron	0.470	0.492	4.6%	А
	TDS	1170	1210	3.4%	А

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		Sample Result	Duplicate		
Identification	Analyte	(mg/L)	Result (mg/L)	RPD <sup>a</sup>	Qualified
ARK-AP1PZ-11/	Sulfate	54.3	80.1	<5*RL, <2*RL	A*
ARK-AP1-FD-02	Chloride	1.20	1.21	0.8%	А
	Fluoride	0.202	0.297	<5*RL, <2*RL	A*
	Arsenic	0.00303 J	0.00319 J	<5*RL, <2*RL	A*
	Boron	0.143	0.146	2.1%	А
	Calcium	27.6	28.0	1.4%	А
	Barium	0.0234	0.0242	3.4%	А
	Molybdenum	0.000342 J	0.000326 J	<5*RL, <2*RL	A*
	TDS	198	197	0.5%	А

<sup>a</sup> 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.