2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT SOUTH ASH POND WINYAH GENERATING STATION

by Santee Cooper
Moncks Corner, South Carolina

January 31, 2022 (Amended March 2, 2022)

Table of Contents **Page**

1. Annual Groundwater Monitoring Report Summary

The South Carolina Public Service Authority (Santee Cooper) has prepared this 2021 Annual Groundwater Monitoring Corrective Action Report for South Ash Pond at the Winyah Generating Station (WGS). This 2021 Annual Report was prepared to comply with the United States Environmental Protection Agency (EPA) Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities, Title 40 Code of Federal Regulations (40 CFR) Part 257, Subpart D dated 17 April 2015 (CCR Rule), specifically subsection § 257.90(e)(1) through (6).

In accordance with § 257.90(e)(6), an overview of the current status of the groundwater monitoring and corrective action programs for the CCR unit is provided below:

At the start of the current annual reporting period (January 1, 2021), South Ash Pond continued to operate under an assessment monitoring program in accordance with § 257.95, which was initiated on July 16, 2018. Statistically significant levels (SSLs) of Appendix IV constituents above the groundwater protection standards (GWPS) were not identified in any of the wells to date, including both the February and July 2021 sampling events. At the end of the current annual reporting period (December 31, 2021), the South Ash Pond remains in the assessment monitoring program. Because SSLs of Appendix IV constituents have not been identified, initiating, and completing an assessment of corrective measures, holding a public meeting, selecting a remedy, and initiating remedial activities were not required.

To report on the activities conducted during the prior calendar year and document progress complying with the CCR Rule, the specific requirements listed in § 257.90(e)(1) through (5) are provided in the next section in bold/italic type followed by a short narrative stating how that specific requirement was met.

2. 40 CFR § 257.90 Applicability

2.1 40 CFR § 257.90(a)

All CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under § 257.90 through § 257.98.

South Ash Pond at WGS is subject to the groundwater monitoring and corrective action requirements set forth by the EPA in 40 CFR § 257.90 through § 257.98. This document satisfies the requirement under § 257.90(e) which requires the CCR Unit Owner/Operator to prepare an Annual Groundwater Monitoring and Corrective Action Report.

2.2 40 CFR § 257.90(e) - SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the

problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).

This Annual Report documents the activities completed in 2021 for South Ash Pond at WGS as required by the Groundwater Monitoring and Corrective Action regulations. Groundwater sampling and analysis was conducted per the requirements of § 257.93, and the status of the groundwater monitoring program, set forth in § 257.95, is provided in this report.

2.2.1 Status of the Groundwater Monitoring and Corrective Action Program

Statistically significant increases (SSI) of Appendix III constituents were identified downgradient of South Ash Pond, and the notification was provided on January 15, 2018. An alternate source demonstration (ASD) was conducted by Haley & Aldrich, Inc, and a report was provided to Santee Cooper in April 2018. The review by Haley & Aldrich did not identify contributing sources that could serve as an alternate source for the SSI's observed in the CCR well network for the WGS South Ash Pond. As a result, an Assessment Monitoring program was initiated as required by § 257.94(e)(2). The notification was placed in the facility's operating record as required by 257.106(h)(4).

As required by § 257.93(h)(2), a statistical evaluation of the detected Appendix IV constituents was conducted. The results of this evaluation determined that the detected Appendix IV constituents were not present at statistically significant levels (SSLs) above the GWPS. Therefore, this unit remained in assessment monitoring in 2021. The two sampling events in 2021 are consistent with prior sampling results and confirm that SSLs of the detected Appendix IV constituents above GWPS are not present for this unit, so the unit remains in assessment monitoring.

2.2.2 Key Actions Completed

The following key actions were completed in 2021:

- Prepared 2020 Annual Report including:
    - The Annual Report was placed in the facility's operating record pursuant to § 257.105(h)(1);
    - Pursuant to § 257.106(h)(1), the notification was sent to the relevant State Director within 30 days of the Annual Report being placed in the facility's operating record [§ 257.106(d)];
    - Pursuant to § 257.107(h)(1), the Annual Report was posted to the CCR Website within 30 days of the Annual Report being placed in the facility's operating record [§ 257.107(d)];
- Collected and analyzed two rounds of groundwater samples (February and July) in accordance with § 257.95(b) and § 257.95(d)(1) and recorded the concentrations in the facility's operating record as required by § 257.95(d)(1). Groundwater monitoring results are summarized in Table 1 and laboratory analytical results are provided in Appendix B; and

- Completed statistical evaluations to determine if SSLs above GWPS were present for detected Appendix IV constituents in accordance with § 257.93(h)(2) (Appendix A).

2.2.3 Problems Encountered

Problems such as damaged wells or issues with sample collection or lack of sampling were not encountered at the South Ash Pond in 2021.

2.2.4 Actions to Resolve Problems

No problems needed resolution.

2.2.5 Project Key Activities for Upcoming Year

Key activities to be completed in 2022 include the following:

- Conduct semi-annual groundwater monitoring as required by § 257.95.
- Complete statistical analysis of Assessment Monitoring analytical data to determine if SSLs of the detected Appendix IV constituents are present above GWPS.
- Prepare the 2022 annual report; place it in the record as required by § 257.105(h)(1), notify the state [§ 257.106(d)]; and post to website [§ 257.107(d)].
- Based on the findings of the statistical analysis, conduct an evaluation of alternate sources of Appendix IV parameters, determine the nature and extent of any SSLs identified, and prepare an assessment of corrective measures, if necessary and appropriate, as provided in § 257.95(g)(1) and § 257.95(g)(3).

2.3 40 CFR § 257.90(e) - INFORMATION

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.3.1 40 CFR § 257.90(e)(1)

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

As required by § 257.90(e)(1), a map showing the location of the CCR unit and associated upgradient and downgradient monitoring wells for South Ash Pond is presented as Figure 1.

2.3.2 40 CFR § 257.90(e)(2)

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

Groundwater monitoring wells were not installed or decommissioned in 2021.

2.3.3 40 CFR § 257.90(e)(3)

In addition to all the monitoring data obtained under § 257.90 through § 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

In accordance with § 257.95(b) and § 257.95(d)(1), two independent samples from each background and downgradient monitoring well were collected and analyzed. A summary table including the sample names, dates of sample collection, reason for sample collection (detection or assessment), and monitoring data obtained for the groundwater monitoring program for South Ash Pond is presented in Table 1 of this report. In addition, in accordance with § 257.95(d)(3), Table 1 includes the groundwater protection standards established under § 257.95(d)(2). Laboratory analytical data reports, along with field sampling forms, are provided in Appendix B to this report.

2.3.4 40 CFR § 257.90(e)(4)

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

As required by § 257.93(h) a statistical analysis of the Appendix III constituents was completed January 15, 2018. Baseline analytical data collected from background monitoring wells WBW-1 and WAP-1 were combined to develop Upper Tolerance Limits (UTLs). The UTLs for each Appendix III constituent were compared to the analytical results for the downgradient monitoring wells (WAP-2, WAP-3, WAP-12, and WAP-13). Constituents with analytical results exceeding the UTLs were identified as SSIs over background for the respective Appendix III constituent. This statistical analysis determined that SSIs of boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids were present downgradient of South Ash Pond. An evaluation of alternate sources was initiated and completed on April 16, 2018 as provided in § 257.94(e)(2). A source causing the SSI over background levels was not identified at that time, and to meet the requirements of 40 CFR § 257.95, an Assessment Monitoring program was initiated on July 16, 2018.

In assessment monitoring the sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the monitoring events of 2021 were compared to their respective GWPS (Appendix A). A sample concentration greater than the GWPS is considered to represent an SSL. Based on previous compliance sampling events and statistical evaluations, interwell comparisons were utilized for all downgradient wells and constituents. As required by § 257.93(h)(2), the statistical evaluation of the detected Appendix IV constituents determined that SSLs above the GWPS were not present at South Ash Pond, consistent with previous results. Therefore, this unit will remain in assessment monitoring in 2022.

2.3.5 40 CFR § 257.90(e)(5)

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

Other information including development of groundwater protection standards, recording groundwater monitoring results in the operating record, and an evaluation of alternate sources is discussed in preceding sections.

As specified in § 257.93(c), the groundwater flow rate was calculated to be 0.017 ft/day (6.2 ft/yr) for February - March 2021 and 0.015 ft/day (5.5 ft/yr) for July 2021. Pond closure operations have contributed to a dynamic environment in which historic radial groundwater flow direction may be altered on a permanent or temporary basis. Data from 2021 suggests this may have occurred, but the evaluation was inconclusive because pond water levels were not measured. Groundwater levels will continue to be monitored throughout 2022, including measurements of pond water levels, to determine if flow direction has changed or if additional piezometers or monitoring wells are necessary.

TABLES

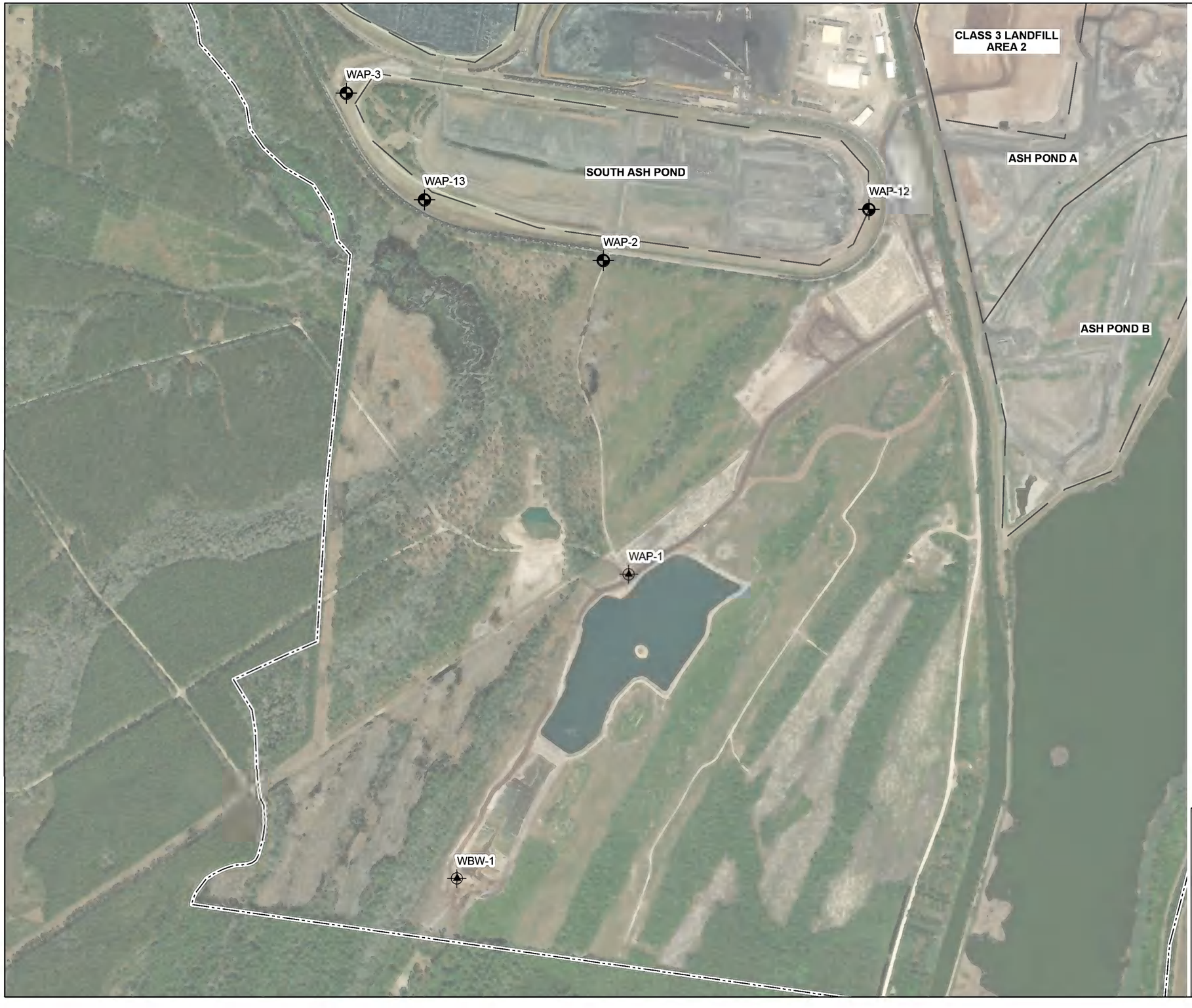
TABLE 1 - Summary of Analytical Results
Winyah Generating Station South Ash Pond Assessment Monitoring

					Appendix III Constituents							Appendix IV Constituents																		Field Parameters							
Well ID	Purpose	Date of Sample Event	Laboratory Sample ID Number		Boron	Calcium	Chloride	Fluoride	Sulfate	Total Dissolved Solids	pH	Antimony	Arsenic	Barium	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium 226	Radium 228	Radium 226/Radium 228 Combined Calculation	Selenium	Thallium	Depth to Groundwater	Groundwater Elevation	pH	Specific Conductivity	Temperature	Oxidation Reduction Potential	Turbidity	Dissolved Oxygen
				Unit	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	SU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	ug/L	ug/L	Feet (btoc)	Feet (msl)	SU	uS	C	mv	NTU	ppm
				Method	EPA 6010D	EPA 6020B	EPA 300.0	EPA 300.0	EPA 300.0	SM 2540C		EPA 6020B	EPA 6020B	EPA 6010D	EPA 6020B	EPA 6020B	EPA 6020B	EPA 6020B	EPA 6020B	EPA 300.0	EPA 6020B	EPA 6010D	EPA 7470	EPA 6010D	EPA 903.1 Mod	EPA 904.0	EPA 903.1 Mod	EPA 6020B	EPA 6020B						SM2580		
				GWPS/US EPA MCL/RSL	---	---	---	4	---	---	---	6	10	2000	2000	4	5	100	5	4	15	40	2	100	---	---	5	50	2	---	---	---	---	---	---	---	---	---
Site Background Wells																																				
WAP-1	Background	2/15/2021	AE96379		24	2.1	7.18	<0.10	24.6	67.5	4.2	<5.0	8.3		52.9	<0.50	<0.50	<5.0	1.5	<0.10	<1.0	<10	<0.2	<10	0.422	1.34	1.76	<10.0	<1.0	4.16	25.28	4.2	85	14.13	227	0	0.65
WAP-1	Background	7/20/2021	AF09050		26	2.2	8.76	<0.10	27.8	78.75	4.24	<5.0	<5.0		54.7	<0.50	<0.50	<5.0	1.6	<0.10	<1.0	<10	<0.2	<10	1.05	3.96	5.01	<10.0	<1.0	6.14	23.3	4.24	88	28.33	133	0.9	0.44
WAP-1	**total samples**				2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
WBW-1	Background	2/15/2021	AE96412		<15	0.51	1.77	<0.10	6.41	32.5	4.2	<5.0	<5.0		9.7	<0.50	<0.50	<5.0	<0.50	<0.10	<1.0	<10	<0.2	<10	0.453	1.24	1.69	<10.0	<1.0	3.32	28.65	4.2	28	14.41	339	0	0.72
WBW-1	Background	7/20/2021	AF09083		<15	1.2	4.62	<0.10	5.84	68.75	4.77	<5.0	<5.0		23.7	<0.50	<0.50	5	2.3	<0.10	<1.0	<10	<0.2	<10	0.602	0.024	0.626	<10.0	<1.0	18.27	13.7	4.77	42	24.72	121	0	0.69
WBW-1	**total samples**				2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
South Ash Pond Wells																																				
WAP-2	Assessment	2/15/2021	AE96380			513	885	<0.10	240	3218	6.31	<5.0	<5.0		417	<0.50	<0.50	<5.0	<0.50	<0.10	<1.0	13	<0.2	<10	5.07	3.43	8.5	<10.0	<1.0	3.25	20.44	6.31	4010	13.36	-30	0	0.79
WAP-2	Assessment	7/20/2021	AF09051		8300	572	962	<0.10	233	3275	6.28		<5.0		436		<0.50	<5.0		<0.10	<1.0				4.72	2.8	7.52	<10.0		5.22	18.47	6.28	4090	25.2	-82	5.7	0.46
WAP-2	**total samples**				1	2	2	2	2	2	2	1	2	0	2	1	2	2	1	2	2	1	1	1	2	2	2	2	1	2	2	2	2	2	2	2	2
WAP-3	Assessment	2/24/2021	AE96381			128	83.3	0.11	15.3	516.2	6.27	<5.0	<5.0		48.7	<0.50	<0.50	<5.0	<0.50	0.11	<1.0	<10	<0.2	<10	1.47	-0.123	1.47	<10.0	<1.0	6.09	13.34	6.27	738	19.63	-6	15.3	0.74
WAP-3	Assessment	7/29/2021	AF09052		1700	247	233	0.11	175	1152	6.18		<5.0		157		<0.50	<5.0		0.11	<1.0				2.08	1.13	3.21	<10.0		6.77	12.66	6.18	1420	29.29	-52	4.7	0.41
WAP-3	**total samples**				1	2	2	2	2	2	2	1	2	0	2	1	2	2	1	2	2	1	1	1	2	2	2	2	1	2	2	2	2	2	2	2	2
WAP-12	Assessment	3/4/2021	AE96391		4900	279	252	<0.10	900	1772	4.99	<5.0	<5.0	23.6		<0.50	<0.50	<5.0	<0.50	<0.10	<1.0	<10	<0.2	<10	1.65	1.53	3.18	<10.0	<1.0	6.87	23.97	4.99	2130	20.21	135	0	0.48
WAP-12	Duplicate	3/4/2021	AE96392		4800	269	252	<0.10	903	1680		<5.0	<5.0	23.6		<0.50	<0.50	<5.0	<0.50	<0.10	<1.0	<10	<0.2	<10	1.42	3.31	4.72	<10.0	<1.0								
WAP-12	Assessment	7/29/2021	AF09062		370	29.3	21.5	<0.10	74.9	172.5	4.54				15.6					<0.10					0.579	0.261	0.84			9.02	21.82	4.54	201	30.55	194	0	0.39
WAP-12	Duplicate	7/29/2021	AF09063		390	32.6	26.2	<0.10	83.6	176.2					17					<0.10					0.216	3.28	3.5										
WAP-12	**total samples**				4	4	4	4	4	4	2	2	2	2	2	2	2	2	2	4	2	2	2	2	4	4	4	2	2	2	2	2	2	2	2	2	2
WAP-13	Assessment	3/4/2021	AE96393		4400	472	645	<0.10	151	2238	6.32	<5.0	<5.0	274		<0.50	<0.50	<5.0	<0.50	<0.10	<1.0	<10	<0.2	<10	1.4	1.96	3.36	<10.0	<1.0	5.19	16.78	6.32	3110	19.88	-66	0	0.56
WAP-13	Assessment	7/29/2021	AF09064		4200	418	665	<0.10	107	2144	6.4				279					<0.10					1.16	2.68	3.83			6.24	15.73	6.4	2950	24.8	-101	0	0.5
WAP-13	**total samples**				2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	2	2	2	1	1	2	2	2	2	2	2	2	2

All groundwater samples collected from the monitoring wells for Assessment Monitoring in 2021 for the constituents listed in Appendix III and Appendix IV of the EPA CCR Rule (40 CFR) were analyzed by South Carolina Certified laboratories: Santee Cooper Analytical Services (Certification # 08552), GEL Laboratories, LLC (Certification # 10120), and Rogers & Callcot, Inc. (Certification # 23105001).

Notes: 1.Some groundwater monitoring wells are sampled for both Federal CCR and State Permit program compliance. Applicable analytical results from the State Permit program have been included in this summary table. All background and downgradient compliance wells have been sampled to meet § 257.95.

FIGURES



LEGEND

- BACKGROUND WELL
- SOUTH ASH POND CCR WELLS
- CCR UNIT BOUNDARY
- PROPERTY BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 730 1,460

SCALE IN FEET

SANTEE COOPER
WINYAH GENERATING STATION
GEORGETOWN, SOUTH CAROLINA

LOCATION OF SOUTH ASH POND GROUNDWATER MONITORING WELLS FOR CCR COMPLIANCE

JANUARY 2022

FIGURE 1

Appendix A – Statistical Analysis

HALEY & ALDRICH, INC.
400 Augusta Street
Suite 100
Greenville, SC 29601
864.214.8750

TECHNICAL MEMORANDUM

July 28, 2021
File No. 132892-015

SUBJECT: 2021 Semi-annual Groundwater Assessment Monitoring Data
Statistical Evaluation
Winyah Generating Station
South Ash Pond

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained for the February 2021 semi-annual assessment monitoring event for South Ash Pond at the Winyah Generating Station (WGS). The statistical evaluation discussed in this memorandum was conducted to continue to evaluate the Appendix IV groundwater monitoring constituents for the presence of statistically significant levels (SSLs) above Groundwater Protection Standards (GWPS) consistent with the requirements in 40 CFR § 257.95.

Utilizing interwell evaluations, data from the groundwater sampling events for the downgradient monitoring wells were compared to the GWPS established from the background dataset for the upgradient monitoring wells (WAP-1 and WBW-1) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level (RSL), or background concentration. The results of the groundwater assessment monitoring statistical evaluation are discussed below and provided in Table I.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). The statistical method used for these evaluations, tolerance limit (TL), was certified by Haley & Aldrich, Inc. on October 14, 2017. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above GWPS. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The groundwater sampling result from each compliance well was compared to the corresponding GWPS to determine if a SSL existed.

STATISTICAL EVALUATION

An interwell evaluation was used to determine SSLs. Interwell evaluation compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well

data. Because the CCR unit has transitioned into assessment monitoring, statistical evaluations were not conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The parametric TL methods were used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for all detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the February 2021 semi-annual sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if a SSL was present. The LCL is the lower end of the confident interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location (WAP-1 and WBW-1) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009,* background concentrations were updated for the February 2020 semi-annual sampling event based on statistical evaluation of analytical results collected through February 2020. The background dataset will be updated again in February 2022 per the Unified Guidance.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the February 2021 semi-annual assessment monitoring event were compared to their

respective GWPS (Table I). A sample concentration greater than the GWPS is considered to represent a SSL. Based on previous compliance sampling event and statistical evaluations, interwell comparisons were utilized for all downgradient wells and constituents. Based on these statistical evaluations and consistent with previous results, SSLs above GWPS were not identified at the South Ash Pond and as a result the South Ash Pond will remain in assessment monitoring.

Tables:

Table I – Summary of Assessment Monitoring Statistical Evaluation – February 2021

TABLES

Winyah South Ash Pond

Assessment Monitoring Statistical Analysis Summary

Prepared: July 15, 2021

																		Inter-well Analysis					
Location Id	**Frequency of Detection**	**Percent Non-Detects**	**Range of Non-Detect**	**Mean**	**50th Percentile (Median)**	**95th Percentile**	**Maximum Detect**	**Variance**	**Standard Deviation**	**Coefficient of Variance**	**CCR MCL/RSL**	**Report Result Unit**	**Detection Exceedances (Y/N)**	**Number of Detection Exceedances**	**Number of Non-Detection Exceedances**	**Outlier Presence**	**Outlier Removed**	**Trend**	**Distribution Well[a]**	**February 2021 Concentration**	**LCL**	**Detect?**	**Upper Tolerance Limit (mg/L)**	**SSI**	**GWPS (Higher of MCL/RSL or Background Limit) (mg/L)**	**SSL**
CCR Appendix-IV: Antimony, Total (mg/L)																									
WBW-1	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA	NA				0.025		0.025	
WAP-01	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA								
WAP-02	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.005		N		N		FALSE
WAP-03	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.005		N		N		FALSE
WAP-12	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.005		N		N		FALSE
WAP-13	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	0.005		N		N		FALSE
CCR Appendix-IV: Arsenic, Total (mg/L)																									
WBW-1	0/15	100%	0.003-0.005	0.00473	0.005	0.005		4.952E-07	0.0007037	0.1487	0.01	mg/L	N	0	0	NA	NA	NA	NA				0.008		0.010	
WAP-01	1/17	94%	0.003-0.005	0.00496	0.005	0.00566	0.0083	0.000001179	0.001086	0.219	0.01	mg/L	N	0	0	Yes	No	NA								
WAP-02	0/16	100%	0.003-0.005	0.00475	0.005	0.005		4.667E-07	0.0006831	0.1438	0.01	mg/L	N	0	0	No	No	NA	NA	0.005		N		N		FALSE
WAP-03	0/16	100%	0.003-0.005	0.00475	0.005	0.005		4.667E-07	0.0006831	0.1438	0.01	mg/L	N	0	0	No	No	NA	NA	0.005		N		N		FALSE
WAP-12	5/13	62%	0.003-0.005	0.00529	0.005	0.007048	0.0082	0.00000131	0.001145	0.2163	0.01	mg/L	N	0	0	Yes	No	Stable	Non-parametric	0.005		N		N		FALSE
WAP-13	2/13	85%	0.003-0.005	0.0051	0.005	0.00712	0.0103	0.000002997	0.001731	0.3394	0.01	mg/L	Y	1	0	Yes	No	NA	NA	0.005		N		N		FALSE
CCR Appendix-IV: Barium, Total (mg/L)																									
WBW-1	15/15	0%	-	0.0126	0.013	0.01565	0.016	0.000008808	0.002968	0.2348	2	mg/L	N	0	0	No	No	Decreasing	Non-parametric				0.094		2.000	
WAP-01	17/17	0%	-	0.0314	0.025	0.0628	0.094	0.0005614	0.02369	0.7541	2	mg/L	N	0	0	No	No	Stable								
WAP-02	17/17	0%	-	0.304	0.311	0.3786	0.417	0.007327	0.0856	0.2812	2	mg/L	N	0	0	Yes	No	Stable	Normal	0.417		Y		Y		FALSE
WAP-03	17/17	0%	-	0.072	0.077	0.1154	0.121	0.0007336	0.02709	0.3761	2	mg/L	N	0	0	No	No	Stable	Normal	0.049		Y		N		FALSE
WAP-12	15/15	0%	-	0.0412	0.0461	0.05724	0.0627	0.0001524	0.01235	0.2996	2	mg/L	N	0	0	No	No	Decreasing	Normal	0.024		Y		N		FALSE
WAP-13	15/15	0%	-	0.263	0.261	0.326	0.34	0.001313	0.03623	0.138	2	mg/L	N	0	0	No	No	Stable	Normal	0.274		Y		Y		FALSE
CCR Appendix-IV: Beryllium, Total (mg/L)																									
WBW-1	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA				0.001		0.004	
WAP-01	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
WAP-03	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
WAP-12	1/12	92%	0.0005-0.0005	0.000513	0.0005	0.0005675	0.00065	1.875E-09	0.0000433	0.08449	0.004	mg/L	N	0	0	No	No	Stable	Non-parametric	0.0005		N		N		FALSE
WAP-13	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
CCR Appendix-IV: Cadmium, Total (mg/L)																									
WBW-1	0/14	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	NA				0.001		0.005	
WAP-01	0/16	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/16	100%	0.0005-0.002	0.000594	0.0005	0.000875		1.406E-07	0.000375	0.6316	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
WAP-03	0/16	100%	0.0005-0.002	0.000594	0.0005	0.000875		1.406E-07	0.000375	0.6316	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
WAP-12	0/13	100%	0.0005-0.002	0.000615	0.0005	0.0011		1.731E-07	0.000416	0.676	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
WAP-13	0/13	100%	0.0005-0.002	0.000615	0.0005	0.0011		1.731E-07	0.000416	0.676	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
CCR Appendix-IV: Chromium, Total (mg/L)																									
WBW-1	0/14	100%	0.005-0.005	0.005	0.005	0.005		1.251E-20	1.118E-10	2.237E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA				0.0050		0.100	
WAP-01	0/16	100%	0.005-0.005	0.005	0.005	0.005		7.228E-21	8.502E-11	0.000000017	0.1	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/16	100%	0.005-0.01	0.00531	0.005	0.00625		0.000001562	0.00125	0.2353	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005		N		N		FALSE
WAP-03	0/16	100%	0.005-0.01	0.00531	0.005	0.00625		0.000001562	0.00125	0.2353	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005		N		N		FALSE
WAP-12	0/13	100%	0.005-0.01	0.00538	0.005	0.007		0.000001923	0.001387	0.2575	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005		N		N		FALSE
WAP-13	0/13	100%	0.005-0.01	0.00538	0.005	0.007		0.000001923	0.001387	0.2575	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005		N		N		FALSE
CCR Appendix-IV: Cobalt, Total (mg/L)																									
WBW-1	0/15	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA	NA	NA	NA				0.0015		0.006	
WAP-01	2/15	87%	0.0005-0.0005	0.000573	0.0005	0.000863	0.0015	6.635E-08	0.0002576	0.4498	0.006	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA	NA	NA	NA	0.0005		N		N		FALSE
WAP-03	5/13	62%	0.0005-0.0005	0.000823	0.0005	0.00208	0.0025	3.911E-07	0.0006254	0.76	0.006	mg/L	N	0	0	Yes	No	Stable	Non-parametric	0.0005		N		N		FALSE
WAP-12	4/13	69%	0.0005-0.0005	0.00061	0.0005	0.001064	0.0015	7.774E-08	0.0002788	0.4569	0.006	mg/L	N	0	0	Yes	No	Stable	Non-parametric	0.0005		N		N		FALSE
WAP-13	7/13	46%	0.0005-0.0005	0.000611	0.00058	0.000924	0.00111	3.013E-08	0.0001736	0.2839	0.006	mg/L	N	0	0	Yes	No	Stable	Non-parametric	0.0005		N		N		FALSE
CCR Appendix-IV: Fluoride (mg/L)																									
WBW-1	1/16	94%	0.1-0.1	0.1	0.1	0.1	0.1	1.85E-18	1.36E-09	1.36E-08	4	mg/L	N	0	0	No	No	NA	Non-parametric				0.140		4.00	
WAP-01	2/16	88%	0.1-0.1	0.104	0.1	0.1325	0.14	0.0001462	0.01209	0.1159	4	mg/L	N	0	0	No	No	NA								
WAP-02	1/16	94%	0.1-0.1	0.103	0.1	0.11	0.14	0.0001	0.01	0.09756	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.10		N		N		FALSE
WAP-03	10/16	38%	0.1-0.1	0.139	0.125	0.2125	0.22	0.001892	0.04349	0.3135	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.11		Y		N		FALSE
WAP-12	1/16	94%	0.1-0.1	0.104	0.1	0.115	0.16	0.000225	0.015	0.1446	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.10		N		N		FALSE
WAP-13	4/16	75%	0.1-0.1	0.118	0.1	0.2025	0.21	0.00139	0.03728	0.3156	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.10		N		N		FALSE
CCR Appendix-IV: Lead, Total (mg/L)																									
WBW-1	0/14	100%	0.001-0.01	0.00186	0.001	0.005125		0.000005786	0.002405	1.295	0.015	mg/L	N	0	0	Yes	No	NA	Non-parametric				0.0100		0.015	
WAP-01	4/16	75%	0.001-0.01	0.00205	0.001	0.00592	0.00456	0.000005406	0.002325	1.132	0.015	mg/L	N	0	0	Yes	No	Stable								
WAP-02	0/16	100%	0.001-0.0025	0.00125	0.001	0.0025		0.0000003	0.0005477	0.4382	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE
WAP-03	0/16	100%	0.001-0.0025	0.00125	0.001	0.0025		0.0000003	0.0005477	0.4382	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE
WAP-12	0/13	100%	0.001-0.0025	0.00131	0.001	0.0025		3.558E-07	0.0005965	0.4561	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE
WAP-13	0/13	100%	0.001-0.0025	0.00131	0.001	0.0025		3.558E-07	0.0005965	0.4561	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE
CCR Appendix-IV: Lithium, Total (mg/L)																									
WBW-1	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-10	1.76E-08	0.04	mg/L	N	0	0	NA	NA	NA	Non-parametric				0.012		0.040	
WAP-01	1/15	93%	0.01-0.01	0.0101	0.01	0.01048	0.0116	1.707E-07	0.0004131	0.04088	0.04	mg/L	N	0	0	No	No	NA								
WAP-02	4/13	69%	0.01-0.01	0.0104	0.01	0.0118	0.013	7.564E-07	0.0008697	0.08375	0.04	mg/L	N	0	0	Yes	No	NA	Non-parametric	0.013		Y		Y		FALSE
WAP-03	0/13	100%	0.01-0.01	0.01	0.01	0.01		7.228E-20	2.688E-10	2.688E-08	0.04	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-12	0/13	100%	0.01-0.05	0.0131	0.01	0.026		0.0001231	0.01109	0.8484	0.04	mg/L	N	0	1	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-13	6/13	54%	0.01-0.01	0.0328	0.01	0.139	0.151	0.002355	0.04853	1.478	0.04	mg/L	Y	2	0	Yes	No	Decreasing	Non-parametric	0.010		N		N		FALSE

Winyah South Ash Pond

Assessment Monitoring Statistical Analysis Summary

Prepared: July 15, 2021

CCR Appendix IV: Mercury, Total (mg/L)																								
WBW-1	0/13	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA				0.0002		0.0020	
WAP-01	0/13	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.0002		N		N		FALSE
WAP-03	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.0002		N		N		FALSE
WAP-12	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.0002		N		N		FALSE
WAP-13	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.0002		N		N		FALSE
CCR Appendix IV: Molybdenum, Total (mg/L)																								
WBW-1	0/15	100%	0.01-0.05	0.0127	0.01	0.022		0.0001067	0.01033	0.8154	0.1	mg/L	N	0	0	NA	NA	NA	NA				0.050		0.10	
WAP-01	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-10	1.76E-08	0.1	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.914E-20	2.432E-10	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-03	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.914E-20	2.432E-10	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-12	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.914E-20	2.432E-10	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-13	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.914E-20	2.432E-10	2.432E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
CCR Appendix IV: Radium-226 & 228 (pCi/L)																								
WBW-1	8/15	47%	0-4	3.07	4	4.302	4.33	2.396	1.548	0.5042	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric				5.97		6.0	
WAP-01	10/15	33%	4-4	3.43	4	5.809	5.97	2.591	1.61	0.4694	5	pCi/L	Y	2	0	Yes	No	Decreasing								
WAP-02	15/16	6%	4-4	6.43	6.25	8.387	8.5	1.632	1.278	0.1986	5	pCi/L	Y	15	0	No	No	Stable	Normal	8.500	5.873	Y		N		FALSE
WAP-03	11/15	27%	4-4	3.33	4	4.416	4.64	1.9	1.378	0.4145	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric	1.470		Y		N		FALSE
WAP-12	15/15	0%	-	4.96	4.86	6.563	6.71	1.432	1.197	0.2414	5	pCi/L	Y	7	0	No	No	Decreasing	Normal	3.180		Y		N		FALSE
WAP-13	12/15	20%	4-4	4.16	4	6.098	6.35	1.411	1.188	0.2857	5	pCi/L	Y	3	0	No	No	Decreasing	Normal	3.360		Y		N		FALSE
CCR Appendix IV: Selenium, Total (mg/L)																								
WBW-1	0/14	100%	0.01-0.02	0.0114	0.01	0.02		0.00001319	0.003631	0.3177	0.05	mg/L	N	0	0	NA	NA	NA	NA				0.020		0.050	
WAP-01	0/16	100%	0.01-0.02	0.0112	0.01	0.02		0.00001167	0.003416	0.3036	0.05	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/16	100%	0.005-0.02	0.0109	0.01	0.02		0.00001406	0.00375	0.3429	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-03	0/16	100%	0.005-0.02	0.0109	0.01	0.02		0.00001406	0.00375	0.3429	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-12	0/13	100%	0.005-0.02	0.0112	0.01	0.02		0.00001731	0.00416	0.373	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
WAP-13	0/13	100%	0.005-0.02	0.0112	0.01	0.02		0.00001731	0.00416	0.373	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010		N		N		FALSE
CCR Appendix IV: Thallium, Total (mg/L)																								
WBW-1	0/13	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA				0.001		0.002	
WAP-01	0/13	100%	0.0001-0.001	0.000931	0.001	0.001		6.231E-08	0.0002496	0.2682	0.002	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE
WAP-03	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE
WAP-12	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE
WAP-13	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	0.001		N		N		FALSE

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TECHNICAL MEMORANDUM

November 8, 2021
File No. 132892-015

SUBJECT: 2021 Semi-annual Groundwater Assessment Monitoring Data
Statistical Evaluation
Winyah Generating Station
South Ash Pond

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the groundwater analytical results obtained for the July 2021 semi-annual assessment monitoring event for South Ash Pond at the Winyah Generating Station (WGS). The statistical evaluation discussed in this memorandum was conducted to continue to evaluate the Appendix IV groundwater monitoring constituents for the presence of statistically significant levels (SSLs) above Groundwater Protection Standards (GWPS) consistent with the requirements in 40 CFR § 257.95.

Utilizing interwell evaluations, data from the groundwater sampling events for the downgradient monitoring wells were compared to the GWPS established from the background dataset for the upgradient monitoring wells (WAP-1 and WBW-1) for detected Appendix IV constituents. GWPS for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, regional screening level (RSL), or background concentration. The results of the groundwater assessment monitoring statistical evaluation are discussed below and provided in Table I.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). The statistical method used for these evaluations, tolerance limit (TL), was certified by Haley & Aldrich, Inc. on October 14, 2017. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above GWPS. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The groundwater sampling result from each compliance well was compared to the corresponding GWPS to determine if an SSL existed.

STATISTICAL EVALUATION

An interwell evaluation was used to determine SSLs. Interwell evaluation compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well

data. Because the CCR unit has transitioned into assessment monitoring, statistical evaluations were not conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The parametric TL methods were used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using the background dataset for all detected Appendix IV constituents using parametric TL. If an Appendix IV constituent concentration from the July 2021 semi-annual sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent was used to evaluate if an SSL was present. The LCL is the lower end of the confident interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location (WAP-1 and WBW-1) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset was evaluated to determine the method for UTL calculation. Per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009,* background concentrations were updated for the February 2020 semi-annual sampling event based on statistical evaluation of analytical results collected through February 2020. The background dataset will be updated again in February 2022 per the Unified Guidance.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the July 2021 semi-annual assessment monitoring event were compared to their

respective GWPS (Table I). A sample concentration greater than the GWPS is considered to represent an SSL. Based on previous compliance sampling event and statistical evaluations, interwell comparisons were utilized for all downgradient wells and constituents. Based on these statistical evaluations and consistent with previous results, SSLs above GWPS were not identified at the South Ash Pond and as a result the South Ash Pond will remain in assessment monitoring.

Tables:

Table I – Summary of Assessment Monitoring Statistical Evaluation – July 2021

TABLES

Winyah South Ash Pond

Assessment Monitoring Statistical Analysis Summary

Prepared: October 15, 2021

																		Inter-well Analysis						
Location Id	**Frequency of Detection**	**Percent Non-Detects**	**Range of Non-Detect**	**Mean**	**50th Percentile (Median)**	**95th Percentile**	**Maximum Detect**	**Variance**	**Standard Deviation**	**Coefficient of Variance**	**CCR MCL/RSL**	**Report Result Unit**	**Detection Exceedances (Y/N)**	**Number of Detection Exceedances**	**Number of Non-Detection Exceedances**	**Outlier Presence**	**Outlier Removed**	**Trend**	**Distribution Well***	**July 2021 Concentration (mg/L)**	**Detect?**	**LCL**	**Upper Tolerance Limit (mg/L)**	**SSI**	**GWPS (Higher of MCL/RSL or Background Limit) (mg/L)**	**SSL**
CCR Appendix-IV: Antimony, Total (mg/L)																									
WBW-1	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA	NA						
WAP-01	0/13	100%	0.005-0.025	0.00654	0.005	0.013		0.00003077	0.005547	0.8484	0.006	mg/L	N	0	1	NA	NA	NA					0.025		0.025	
WAP-02	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	NS				N		FALSE
WAP-03	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	NS				N		FALSE
WAP-12	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/12	100%	0.005-0.025	0.00667	0.005	0.014		0.00003333	0.005774	0.866	0.006	mg/L	N	0	1	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Arsenic, Total (mg/L)																									
WBW-1	0/15	100%	0.003-0.005	0.00473	0.005	0.005		4.952E-07	0.0007037	0.1487	0.01	mg/L	N	0	0	NA	NA	NA	NA						
WAP-01	1/17	94%	0.003-0.005	0.00496	0.005	0.00566	0.0083	0.000001179	0.001086	0.219	0.01	mg/L	N	0	0	Yes	No	NA					0.008		0.010	
WAP-02	0/16	100%	0.003-0.005	0.00475	0.005	0.005		4.667E-07	0.0006831	0.1438	0.01	mg/L	N	0	0	No	No	NA	NA	0.005	N			N		FALSE
WAP-03	0/16	100%	0.003-0.005	0.00475	0.005	0.005		4.667E-07	0.0006831	0.1438	0.01	mg/L	N	0	0	No	No	NA	NA	0.005	N			N		FALSE
WAP-12	5/13	62%	0.003-0.005	0.00529	0.005	0.007048	0.0082	0.00000131	0.001145	0.2163	0.01	mg/L	N	0	0	Yes	No	Stable	Non-parametric	NS				N		FALSE
WAP-13	2/13	85%	0.003-0.005	0.0051	0.005	0.00712	0.0103	0.000002997	0.001731	0.3394	0.01	mg/L	Y	1	0	Yes	No	NA	NA	NS				N		FALSE
CCR Appendix-IV: Barium, Total (mg/L)																									
WBW-1	15/15	0%	-	0.0126	0.013	0.01565	0.016	0.000008808	0.002968	0.2348	2	mg/L	N	0	0	No	No	Stable								
WAP-01	17/17	0%	-	0.0314	0.025	0.0628	0.094	0.0005614	0.02369	0.7541	2	mg/L	N	0	0	No	No	Increasing	Non-parametric				0.094		2.000	
WAP-02	17/17	0%	-	0.304	0.311	0.3786	0.417	0.007327	0.0856	0.2812	2	mg/L	N	0	0	Yes	No	Stable	Normal	0.436	Y			Y		FALSE
WAP-03	17/17	0%	-	0.072	0.077	0.1154	0.121	0.0007336	0.02709	0.3761	2	mg/L	N	0	0	No	No	Stable	Normal	0.157	Y			Y		FALSE
WAP-12	15/15	0%	-	0.0412	0.0461	0.05724	0.0627	0.0001524	0.01235	0.2996	2	mg/L	N	0	0	No	No	Decreasing	Normal	0.016	Y			N		FALSE
WAP-13	15/15	0%	-	0.263	0.261	0.326	0.34	0.001313	0.03623	0.138	2	mg/L	N	0	0	No	No	Stable	Normal	0.279	Y			Y		FALSE
CCR Appendix-IV: Beryllium, Total (mg/L)																									
WBW-1	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA								
WAP-01	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA				0.001		0.004	
WAP-02	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-03	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-12	1/12	92%	0.0005-0.0005	0.000513	0.0005	0.0005675	0.00065	1.875E-09	0.0000433	0.08449	0.004	mg/L	N	0	0	No	No	Stable	Non-parametric	NS				N		FALSE
WAP-13	0/12	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.004	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Cadmium, Total (mg/L)																									
WBW-1	0/14	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA								
WAP-01	0/16	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.005	mg/L	N	0	0	NA	NA	NA	NA				0.001		0.005	
WAP-02	0/16	100%	0.0005-0.002	0.000594	0.0005	0.000875		1.406E-07	0.000375	0.6316	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N			N		FALSE
WAP-03	0/16	100%	0.0005-0.002	0.000594	0.0005	0.000875		1.406E-07	0.000375	0.6316	0.005	mg/L	N	0	0	NA	NA	NA	NA	0.0005	N			N		FALSE
WAP-12	0/13	100%	0.0005-0.002	0.000615	0.0005	0.0011		1.731E-07	0.000416	0.676	0.005	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/13	100%	0.0005-0.002	0.000615	0.0005	0.0011		1.731E-07	0.000416	0.676	0.005	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Chromium, Total (mg/L)																									
WBW-1	0/14	100%	0.005-0.005	0.005	0.005	0.005		1.251E-20	1.118E-10	2.237E-08	0.1	mg/L	N	0	0	NA	NA	NA								
WAP-01	0/16	100%	0.005-0.005	0.005	0.005	0.005		7.228E-21	8.502E-11	0.000000017	0.1	mg/L	N	0	0	NA	NA	NA	NA				0.0050		0.100	
WAP-02	0/16	100%	0.005-0.01	0.00531	0.005	0.00625		0.000001562	0.00125	0.2353	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005	N			N		FALSE
WAP-03	0/16	100%	0.005-0.01	0.00531	0.005	0.00625		0.000001562	0.00125	0.2353	0.1	mg/L	N	0	0	NA	NA	NA	NA	0.005	N			N		FALSE
WAP-12	0/13	100%	0.005-0.01	0.00538	0.005	0.007		0.000001923	0.001387	0.2575	0.1	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/13	100%	0.005-0.01	0.00538	0.005	0.007		0.000001923	0.001387	0.2575	0.1	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Cobalt, Total (mg/L)																									
WBW-1	0/15	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA	NA	NA								
WAP-01	2/15	87%	0.0005-0.0005	0.000573	0.0005	0.000863	0.0015	6.635E-08	0.0002576	0.4498	0.006	mg/L	N	0	0	NA	NA	NA	NA				0.0023		0.006	
WAP-02	0/13	100%	0.0005-0.0005	0.0005	0.0005	0.0005		0	0	0	0.006	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-03	5/13	62%	0.0005-0.0005	0.000823	0.0005	0.00208	0.0025	3.911E-07	0.0006254	0.76	0.006	mg/L	N	0	0	Yes	No	Stable	Non-parametric	NS				N		FALSE
WAP-12	4/13	69%	0.0005-0.0005	0.00061	0.0005	0.001064	0.0015	7.774E-08	0.0002788	0.4569	0.006	mg/L	N	0	0	Yes	No	Stable	Non-parametric	NS				N		FALSE
WAP-13	7/13	46%	0.0005-0.0005	0.000611	0.00058	0.000924	0.00111	3.013E-08	0.0001736	0.2839	0.006	mg/L	N	0	0	Yes	No	Stable	Non-parametric	NS				N		FALSE
CCR Appendix-IV: Fluoride (mg/L)																									
WBW-1	1/16	94%	0.1-0.1	0.1	0.1	0.1	0.1	1.85E-18	1.36E-09	1.36E-08	4	mg/L	N	0	0	No	No	NA								
WAP-01	2/16	88%	0.1-0.1	0.104	0.1	0.1325	0.14	0.0001462	0.01209	0.1159	4	mg/L	N	0	0	No	No	NA	Non-parametric				0.140		4.00	
WAP-02	1/16	94%	0.1-0.1	0.103	0.1	0.11	0.14	0.0001	0.01	0.09756	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.10	N			N		FALSE
WAP-03	10/16	38%	0.1-0.1	0.139	0.125	0.2125	0.22	0.001892	0.04349	0.3135	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.11	Y			N		FALSE
WAP-12	1/16	94%	0.1-0.1	0.104	0.1	0.115	0.16	0.000225	0.015	0.1446	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.10	N			N		FALSE
WAP-13	4/16	75%	0.1-0.1	0.118	0.1	0.2025	0.21	0.00139	0.03728	0.3156	4	mg/L	N	0	0	No	No	Stable	Non-parametric	0.10	N			N		FALSE
CCR Appendix-IV: Lead, Total (mg/L)																									
WBW-1	0/14	100%	0.001-0.01	0.00186	0.001	0.005125		0.000005786	0.002405	1.295	0.015	mg/L	N	0	0	Yes	No	NA								
WAP-01	4/16	75%	0.001-0.01	0.00205	0.001	0.00592	0.00456	0.000005406	0.002325	1.132	0.015	mg/L	N	0	0	Yes	No	Stable	Non-parametric				0.0100		0.015	
WAP-02	0/16	100%	0.001-0.0025	0.00125	0.001	0.0025		0.0000003	0.0005477	0.4382	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001	N			N		FALSE
WAP-03	0/16	100%	0.001-0.0025	0.00125	0.001	0.0025		0.0000003	0.0005477	0.4382	0.015	mg/L	N	0	0	NA	NA	NA	NA	0.001	N			N		FALSE
WAP-12	0/13	100%	0.001-0.0025	0.00131	0.001	0.0025		3.558E-07	0.0005965	0.4561	0.015	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/13	100%	0.001-0.0025	0.00131	0.001	0.0025		3.558E-07	0.0005965	0.4561	0.015	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Lithium, Total (mg/L)																									
WBW-1	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.098E-20	1.76E-10	1.76E-08	0.04	mg/L	N	0	0	NA	NA	NA								
WAP-01	1/15	93%	0.01-0.01	0.0101	0.01	0.01048	0.0116	1.707E-07	0.0004131	0.04088	0.04	mg/L	N	0	0	No	No	NA	Non-parametric				0.012		0.040	
WAP-02	4/13	69%	0.01-0.01	0.0104	0.01	0.0118	0.013	7.564E-07	0.0008697	0.08375	0.04	mg/L	N	0	0	Yes	No	NA	Non-parametric	NS				N		FALSE
WAP-03	0/13	100%	0.01-0.01	0.01	0.01	0.01		7.228E-20	2.688E-10	2.688E-08	0.04	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-12	0/13	100%	0.01-0.05	0.0131	0.01	0.026		0.0001231	0.01109	0.8484	0.04	mg/L	N	0	1	NA	NA	NA	NA	NS				N		FALSE
WAP-13	6/13	54%	0.01-0.01	0.0328	0.01	0.139	0.151	0.002355	0.04853	1.478	0.04	mg/L	Y	2	0	Yes	No	Decreasing	Non-parametric	NS				N		FALSE

Winyah South Ash Pond

Assessment Monitoring Statistical Analysis Summary

Prepared: October 15, 2021

CCR Appendix-IV: Mercury, Total (mg/L)																								
WBW-1	0/13	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA				0.0002		0.0020	
WAP-01	0/13	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-03	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-12	0/12	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/11	100%	0.0002-0.0002	0.0002	0.0002	0.0002		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Molybdenum, Total (mg/L)																								
WBW-1	0/15	100%	0.01-0.05	0.0127	0.01	0.022		0.0001067	0.01033	0.8154	0.1	mg/L	N	0	0	NA	NA	NA	NA				0.050		0.10	
WAP-01	0/15	100%	0.01-0.01	0.01	0.01	0.01		3.09E-20	1.76E-10	1.76E-08	0.1	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.91E-20	2.43E-10	2.43E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-03	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.91E-20	2.43E-10	2.43E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-12	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.91E-20	2.43E-10	2.43E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/12	100%	0.01-0.01	0.01	0.01	0.01		5.91E-20	2.43E-10	2.43E-08	0.1	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Radium-226 & 228 (pCi/L)																								
WBW-1	8/15	47%	0-4	3.07	4	4.302	4.33	2.396	1.548	0.5042	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric				5.97		6.0	
WAP-01	10/15	33%	4-4	3.43	4	5.809	5.97	2.591	1.61	0.4694	5	pCi/L	Y	2	0	Yes	No	Decreasing								
WAP-02	15/16	6%	4-4	6.43	6.25	8.387	8.5	1.632	1.278	0.1986	5	pCi/L	Y	15	0	No	No	Stable	Normal	7.520	Y	5.873		N		FALSE
WAP-03	11/15	27%	4-4	3.33	4	4.416	4.64	1.9	1.378	0.4145	5	pCi/L	N	0	0	No	No	Decreasing	Non-parametric	3.210	Y			N		FALSE
WAP-12	15/15	0%	-	4.96	4.86	6.563	6.71	1.432	1.197	0.2414	5	pCi/L	Y	7	0	No	No	Decreasing	Normal	0.840	Y			N		FALSE
WAP-13	12/15	20%	4-4	4.16	4	6.098	6.35	1.411	1.188	0.2857	5	pCi/L	Y	3	0	No	No	Decreasing	Normal	3.830	Y			N		FALSE
CCR Appendix-IV: Selenium, Total (mg/L)																								
WBW-1	0/14	100%	0.01-0.02	0.0114	0.01	0.02		0.00001319	0.003631	0.3177	0.05	mg/L	N	0	0	NA	NA	NA	NA				0.020		0.050	
WAP-01	0/16	100%	0.01-0.02	0.0112	0.01	0.02		0.00001167	0.003416	0.3036	0.05	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/16	100%	0.005-0.02	0.0109	0.01	0.02		0.00001406	0.00375	0.3429	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N			N		FALSE
WAP-03	0/16	100%	0.005-0.02	0.0109	0.01	0.02		0.00001406	0.00375	0.3429	0.05	mg/L	N	0	0	NA	NA	NA	NA	0.010	N			N		FALSE
WAP-12	0/13	100%	0.005-0.02	0.0112	0.01	0.02		0.00001731	0.00416	0.373	0.05	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/13	100%	0.005-0.02	0.0112	0.01	0.02		0.00001731	0.00416	0.373	0.05	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
CCR Appendix-IV: Thallium, Total (mg/L)																								
WBW-1	0/13	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA				0.001		0.002	
WAP-01	0/13	100%	0.0001-0.001	0.000931	0.001	0.001		6.23E-08	0.0002496	0.2682	0.002	mg/L	N	0	0	NA	NA	NA								
WAP-02	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-03	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-12	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE
WAP-13	0/12	100%	0.001-0.001	0.001	0.001	0.001		0	0	0	0.002	mg/L	N	0	0	NA	NA	NA	NA	NS				N		FALSE

NS=Not Sampled

Appendix B – Laboratory Analytical Reports

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96379 **Location:** GW Well WAP-1 **Date:** 02/15/2021 **Sample Collector:** MDG/DEW

Loc. Code WAP-1 **Time:** 13:37

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	8.3	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	52.9	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Boron	24.0	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	2.1	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	1.5	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	4930	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	<10	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	0.422	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.34	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.76	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	7.18	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	24.6	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	67.50	mg/L	02/19/2021	KCWELLS	SM 2540C
pH	4.20	SU	02/15/2021	DEW/MDG	
Spec. Cond.	85.0	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	0.650	ppm	02/15/2021	DEW/MDG	
Oxidation Reduction Potential	227	mv	02/15/2021	DEW/MDG	SM2580
Temp	14.13	C	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	4.16	Feet	02/15/2021	DEW/MDG	
Elevation	25.28	Feet	03/08/2021	DEWEST	
Aluminum	1.6	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	0.79	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09050 **Location:** GW Well WAP-1 **Date:** 07/20/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-1 **Time:** 12:28

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	54.7	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	26.0	ug/L	08/13/2021	R&C	EPA 6010D
Calcium	2.2	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Cobalt	1.6	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	7890	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	08/09/2021	R&C	EPA 7470
Lithium	<10	ug/L	08/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/10/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	1.05	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.96	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.01	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	8.76	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	27.8	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	78.75	mg/L	07/26/2021	KCWELLS	SM 2540C
pH	4.24	SU	07/20/2021	BRT/MDG	
Spec. Cond.	88	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.440	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	133	mv	07/20/2021	BRT/MDG	SM2580
Temp	28.33	C	07/20/2021	BRT/MDG	
Turbidity	0.900	NTU	07/20/2021	BRT/MDG	
Depth	6.14	Feet	07/20/2021	BRT/MDG	
Elevation	23.30	Feet	08/18/2021	MDGOINGS	
Aluminum	1.1	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	0.66	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Zinc	33.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96380 **Location:** GW Well WAP-2 **Date:** 02/15/2021 **Sample Collector:** MDG/DEW

Loc. Code WAP-2 **Time:** 14:40

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	417	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Calcium	513	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	40900	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	13.0	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	5.07	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	3.43	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	8.50	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	885	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	240	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	3218	mg/L	02/19/2021	KCWELLS	SM 2540C
pH	6.31	SU	02/15/2021	DEW/MDG	
Spec. Cond.	4010	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	.79	ppm	03/09/2021	DEWEST	
Oxidation Reduction Potential	-30.0	mv	02/15/2021	DEW/MDG	SM2580
Temp	13.36	C	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	3.25	Feet	02/15/2021	DEW/MDG	
Elevation	20.44	Feet	03/08/2021	DEWEST	
Aluminum	<0.10	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	71.9	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09051 **Location:** GW Well WAP-2 **Date:** 07/20/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-2 **Time:** 13:28

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	436	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	8300	ug/L	08/10/2021	R&C	EPA 6010D
Calcium	572	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	42600	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	4.72	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.80	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	7.52	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	962	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	233	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	3275	mg/L	07/26/2021	KCWELLS	SM 2540C
pH	6.28	SU	07/20/2021	BRT/MDG	
Spec. Cond.	4090	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.460	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	-82.0	mv	07/20/2021	BRT/MDG	SM2580
Temp	25.20	C	07/20/2021	BRT/MDG	
Turbidity	5.70	NTU	07/20/2021	BRT/MDG	
Depth	5.22	Feet	07/20/2021	BRT/MDG	
Elevation	18.47	Feet	08/18/2021	MDGOINGS	
Aluminum	<0.10	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	77.1	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96412 **Location:** GW Well WBW-1 **Date:** 02/15/2021 **Sample Collector:** MDG/DEW

Loc. Code WBW-1 **Time:** 12:21

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Barium	9.7	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Boron	<15	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	0.51	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	<10	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.453	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.24	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.69	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	1.77	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	6.41	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	32.50	mg/L	02/22/2021	KCWELLS	SM 2540C
pH	4.20	SU	02/15/2021	DEW/MDG	
Spec. Cond.	28.0	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	0.720	ppm	02/15/2021	DEW/MDG	
Oxidation Reduction Potential	339	mv	02/15/2021	DEW/MDG	SM2580
Temp	14.41	C	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	3.32	Feet	02/15/2021	DEW/MDG	
Elevation	28.65	Feet	03/08/2021	DEWEST	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09083 **Location:** GW Well WBW-1 **Date:** 07/20/2021 **Sample Collector:** MDG/BRT

Loc. Code WBW-1 **Time:** 11:07

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	23.7	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	<15	ug/L	08/13/2021	R&C	EPA 6010D
Calcium	1.2	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	2.3	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Chromium	5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	08/09/2021	R&C	EPA 7470
Lithium	<10	ug/L	08/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/10/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Radium 226	0.602	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.0240	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.626	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	4.62	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	5.84	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	68.75	mg/L	07/26/2021	KCWELLS	SM 2540C
pH	4.77	SU	07/20/2021	BRT/MDG	
Spec. Cond.	42.0	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.690	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	121	mv	07/20/2021	BRT/MDG	SM2580
Temp	24.72	C	07/20/2021	BRT/MDG	
Turbidity	0	NTU	07/20/2021	BRT/MDG	
Depth	18.27	Feet	07/20/2021	BRT/MDG	
Elevation	13.70	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96381 **Location:** GW Well WAP-3 **Date:** 02/24/2021 **Sample Collector:** DEW/ATH

Loc. Code WAP-3 **Time:** 13:18

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	48.7	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Calcium	128	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	24200	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/08/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/04/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	1.47	pCi/L	03/04/2021	GEL	EPA 903.1 Mod
Radium 228	-0.123	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.47	pCi/L	03/24/2021	GEL	EPA 903.1 Mod
Chloride	83.3	mg/L	02/26/2021	KCWELLS	EPA 300.0
Fluoride	0.11	mg/L	02/26/2021	KCWELLS	EPA 300.0
Sulfate	15.3	mg/L	02/26/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	516.2	mg/L	03/01/2021	KCWELLS	SM 2540C
pH	6.27	SU	02/24/2021	DEW/ATH	
Spec. Cond.	738	uS	02/24/2021	DEW/ATH	
Dissolved Oxygen	0.740	ppm	02/24/2021	DEW/ATH	
Oxidation Reduction Potential	-6.00	mv	02/24/2021	DEW/ATH	SM2580
Temp	19.63	C	02/24/2021	DEW/ATH	
Turbidity	15.3	NTU	02/24/2021	DEW/ATH	
Depth	6.09	Feet	02/24/2021	DEW/ATH	
Elevation	13.34	Feet	03/08/2021	DEWEST	
Aluminum	<0.10	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	14.7	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09052 **Location:** GW Well WAP-3 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-3 **Time:** 12:35

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	157	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	1700	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	247	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	20900	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	2.08	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	1.13	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.21	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	233	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	0.11	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	175	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1152	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	6.18	SU	07/29/2021	BRT/MDG	
Spec. Cond.	1420	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.410	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	-52.0	mv	07/29/2021	BRT/MDG	SM2580
Temp	29.29	C	07/29/2021	BRT/MDG	
Turbidity	4.70	NTU	07/29/2021	BRT/MDG	
Depth	6.77	Feet	07/29/2021	BRT/MDG	
Elevation	12.66	Feet	08/18/2021	MDGOINGS	
Aluminum	0.11	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	15.3	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96391 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 **Time:** 13:09

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4900.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	279	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.65	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	1.53	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.18	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	900	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1772	mg/L	03/09/2021	KCWELLS	SM 2540C
pH	4.99	SU	03/04/2021	DEW/ML	
Spec. Cond.	2130	uS	03/04/2021	DEW/ML	
Dissolved Oxygen	0.480	ppm	03/04/2021	DEW/ML	
Oxidation Reduction Potential	135	mv	03/04/2021	DEW/ML	SM2580
Temp	20.21	C	03/04/2021	DEW/ML	
Turbidity	0	NTU	03/04/2021	DEW/ML	
Depth	6.87	Feet	03/04/2021	DEW/ML	
Elevation	23.97	Feet	03/08/2021	DEWEST	
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96392 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 Duplicate **Time:** 13:14

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4800.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	269	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.42	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	3.31	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.72	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	903	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1680	mg/L	03/09/2021	KCWELLS	SM 2540C
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09062 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 **Time:** 13:54

Analysis	Result	Units	Test Date	Analyst	Method
Barium	15.6	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	370	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	29.3	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.579	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.261	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.840	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	21.5	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	74.9	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	172.5	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	4.54	SU	07/29/2021	BRT/MDG	
Spec. Cond.	201	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.390	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	194	mv	07/29/2021	BRT/MDG	SM2580
Temp	30.55	C	07/29/2021	BRT/MDG	
Turbidity	0	NTU	07/29/2021	BRT/MDG	
Depth	9.02	Feet	07/29/2021	BRT/MDG	
Elevation	21.82	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09063 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 DUP **Time:** 13:59

Analysis	Result	Units	Test Date	Analyst	Method
Barium	17.0	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	390	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	32.6	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.216	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.28	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.50	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	26.2	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	83.6	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	176.2	mg/L	08/10/2021	SJBROWN	SM 2540C

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96391 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 **Time:** 13:09

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4900.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	279	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.65	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	1.53	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.18	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	900	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1772	mg/L	03/09/2021	KCWELLS	SM 2540C
pH	4.99	SU	03/04/2021	DEW/ML	
Spec. Cond.	2130	uS	03/04/2021	DEW/ML	
Dissolved Oxygen	0.480	ppm	03/04/2021	DEW/ML	
Oxidation Reduction Potential	135	mv	03/04/2021	DEW/ML	SM2580
Temp	20.21	C	03/04/2021	DEW/ML	
Turbidity	0	NTU	03/04/2021	DEW/ML	
Depth	6.87	Feet	03/04/2021	DEW/ML	
Elevation	23.97	Feet	03/08/2021	DEWEST	
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96392 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 Duplicate **Time:** 13:14

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4800.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	269	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.42	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	3.31	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.72	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	903	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1680	mg/L	03/09/2021	KCWELLS	SM 2540C
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09062 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 **Time:** 13:54

Analysis	Result	Units	Test Date	Analyst	Method
Barium	15.6	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	370	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	29.3	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.579	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.261	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.840	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	21.5	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	74.9	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	172.5	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	4.54	SU	07/29/2021	BRT/MDG	
Spec. Cond.	201	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.390	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	194	mv	07/29/2021	BRT/MDG	SM2580
Temp	30.55	C	07/29/2021	BRT/MDG	
Turbidity	0	NTU	07/29/2021	BRT/MDG	
Depth	9.02	Feet	07/29/2021	BRT/MDG	
Elevation	21.82	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09063 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 DUP **Time:** 13:59

Analysis	Result	Units	Test Date	Analyst	Method
Barium	17.0	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	390	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	32.6	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.216	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.28	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.50	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	26.2	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	83.6	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	176.2	mg/L	08/10/2021	SJBROWN	SM 2540C

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09064 **Location:** GW Well WAP-13 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-13 **Time:** 11:29

Analysis	Result	Units	Test Date	Analyst	Method
Barium	279	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	4200	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	418	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	1.16	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.68	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.83	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	665	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	107	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2144	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	6.40	SU	07/29/2021	BRT/MDG	
Spec. Cond.	2950	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.500	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	-101	mv	07/29/2021	BRT/MDG	SM2580
Temp	24.80	C	07/29/2021	BRT/MDG	
Turbidity	0	NTU	07/29/2021	BRT/MDG	
Depth	6.24	Feet	07/29/2021	BRT/MDG	
Elevation	15.73	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96393 **Location:** GW Well WAP-13 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-13 **Time:** 11:55

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4400.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	472	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.40	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	1.96	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.36	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	645	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	151	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2238	mg/L	03/09/2021	KCWELLS	SM 2540C
pH	6.32	SU	03/04/2021	DEW/ML	
Spec. Cond.	3110	uS	03/04/2021	DEW/ML	
Dissolved Oxygen	0.560	ppm	03/04/2021	DEW/ML	
Oxidation Reduction Potential	-66.0	mv	03/04/2021	DEW/ML	SM2580
Temp	19.88	C	03/04/2021	DEW/ML	
Turbidity	0	NTU	03/04/2021	DEW/ML	
Depth	5.19	Feet	03/04/2021	DEW/ML	
Elevation	16.78	Feet	03/08/2021	DEWEST	
Barium	274	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96379 **Location:** GW Well WAP-1 **Date:** 02/15/2021 **Sample Collector:** MDG/DEW

Loc. Code WAP-1 **Time:** 13:37

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	8.3	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	52.9	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Boron	24.0	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	2.1	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	1.5	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	4930	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	<10	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	0.422	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.34	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.76	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	7.18	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	24.6	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	67.50	mg/L	02/19/2021	KCWELLS	SM 2540C
pH	4.20	SU	02/15/2021	DEW/MDG	
Spec. Cond.	85.0	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	0.650	ppm	02/15/2021	DEW/MDG	
Oxidation Reduction Potential	227	mv	02/15/2021	DEW/MDG	SM2580
Temp	14.13	C	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	4.16	Feet	02/15/2021	DEW/MDG	
Elevation	25.28	Feet	03/08/2021	DEWEST	
Aluminum	1.6	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	0.79	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09050 **Location:** GW Well WAP-1 **Date:** 07/20/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-1 **Time:** 12:28

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	54.7	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	26.0	ug/L	08/13/2021	R&C	EPA 6010D
Calcium	2.2	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Cobalt	1.6	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	7890	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	08/09/2021	R&C	EPA 7470
Lithium	<10	ug/L	08/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/10/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	1.05	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.96	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.01	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	8.76	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	27.8	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	78.75	mg/L	07/26/2021	KCWELLS	SM 2540C
pH	4.24	SU	07/20/2021	BRT/MDG	
Spec. Cond.	88	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.440	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	133	mv	07/20/2021	BRT/MDG	SM2580
Temp	28.33	C	07/20/2021	BRT/MDG	
Turbidity	0.900	NTU	07/20/2021	BRT/MDG	
Depth	6.14	Feet	07/20/2021	BRT/MDG	
Elevation	23.30	Feet	08/18/2021	MDGOINGS	
Aluminum	1.1	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	0.66	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Zinc	33.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96380 **Location:** GW Well WAP-2 **Date:** 02/15/2021 **Sample Collector:** MDG/DEW

Loc. Code WAP-2 **Time:** 14:40

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	417	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Calcium	513	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	40900	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	13.0	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	5.07	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	3.43	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	8.50	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	885	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	240	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	3218	mg/L	02/19/2021	KCWELLS	SM 2540C
pH	6.31	SU	02/15/2021	DEW/MDG	
Spec. Cond.	4010	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	.79	ppm	03/09/2021	DEWEST	
Oxidation Reduction Potential	-30.0	mv	02/15/2021	DEW/MDG	SM2580
Temp	13.36	C	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	3.25	Feet	02/15/2021	DEW/MDG	
Elevation	20.44	Feet	03/08/2021	DEWEST	
Aluminum	<0.10	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	71.9	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09051 **Location:** GW Well WAP-2 **Date:** 07/20/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-2 **Time:** 13:28

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	436	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	8300	ug/L	08/10/2021	R&C	EPA 6010D
Calcium	572	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	42600	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	4.72	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.80	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	7.52	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	962	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	233	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	3275	mg/L	07/26/2021	KCWELLS	SM 2540C
pH	6.28	SU	07/20/2021	BRT/MDG	
Spec. Cond.	4090	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.460	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	-82.0	mv	07/20/2021	BRT/MDG	SM2580
Temp	25.20	C	07/20/2021	BRT/MDG	
Turbidity	5.70	NTU	07/20/2021	BRT/MDG	
Depth	5.22	Feet	07/20/2021	BRT/MDG	
Elevation	18.47	Feet	08/18/2021	MDGOINGS	
Aluminum	<0.10	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	77.1	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96412 **Location:** GW Well WBW-1 **Date:** 02/15/2021 **Sample Collector:** MDG/DEW

Loc. Code WBW-1 **Time:** 12:21

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Barium	9.7	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Boron	<15	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	0.51	mg/L	03/25/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	<10	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<10	ug/L	12/30/1999	R&C	EPA 6010D
Lead	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/25/2021	SJHATCHE	EPA 6020B
Radium 226	0.453	pCi/L	03/12/2021	GEL	EPA 903.1 Mod
Radium 228	1.24	pCi/L	03/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.69	pCi/L	03/16/2021	GEL	EPA 903.1 Mod
Chloride	1.77	mg/L	02/18/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	02/18/2021	KCWELLS	EPA 300.0
Sulfate	6.41	mg/L	02/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	32.50	mg/L	02/22/2021	KCWELLS	SM 2540C
pH	4.20	SU	02/15/2021	DEW/MDG	
Spec. Cond.	28.0	uS	02/15/2021	DEW/MDG	
Dissolved Oxygen	0.720	ppm	02/15/2021	DEW/MDG	
Oxidation Reduction Potential	339	mv	02/15/2021	DEW/MDG	SM2580
Temp	14.41	C	02/15/2021	DEW/MDG	
Turbidity	0	NTU	02/15/2021	DEW/MDG	
Depth	3.32	Feet	02/15/2021	DEW/MDG	
Elevation	28.65	Feet	03/08/2021	DEWEST	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09083 **Location:** GW Well WBW-1 **Date:** 07/20/2021 **Sample Collector:** MDG/BRT

Loc. Code WBW-1 **Time:** 11:07

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Barium	23.7	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Boron	<15	ug/L	08/13/2021	R&C	EPA 6010D
Calcium	1.2	mg/L	08/31/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Cobalt	2.3	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Chromium	5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	08/09/2021	R&C	EPA 7470
Lithium	<10	ug/L	08/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	08/10/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/31/2021	SJHATCHE	EPA 6020B
Radium 226	0.602	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.0240	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.626	pCi/L	08/24/2021	GEL	EPA 903.1 Mod
Chloride	4.62	mg/L	07/28/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	07/28/2021	KCWELLS	EPA 300.0
Sulfate	5.84	mg/L	07/28/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	68.75	mg/L	07/26/2021	KCWELLS	SM 2540C
pH	4.77	SU	07/20/2021	BRT/MDG	
Spec. Cond.	42.0	uS	07/20/2021	BRT/MDG	
Dissolved Oxygen	0.690	ppm	07/20/2021	BRT/MDG	
Oxidation Reduction Potential	121	mv	07/20/2021	BRT/MDG	SM2580
Temp	24.72	C	07/20/2021	BRT/MDG	
Turbidity	0	NTU	07/20/2021	BRT/MDG	
Depth	18.27	Feet	07/20/2021	BRT/MDG	
Elevation	13.70	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96381 **Location:** GW Well WAP-3 **Date:** 02/24/2021 **Sample Collector:** DEW/ATH

Loc. Code WAP-3 **Time:** 13:18

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Barium	48.7	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Calcium	128	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Iron	24200	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/08/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/04/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/08/2021	SJHATCHE	EPA 6020B
Radium 226	1.47	pCi/L	03/04/2021	GEL	EPA 903.1 Mod
Radium 228	-0.123	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.47	pCi/L	03/24/2021	GEL	EPA 903.1 Mod
Chloride	83.3	mg/L	02/26/2021	KCWELLS	EPA 300.0
Fluoride	0.11	mg/L	02/26/2021	KCWELLS	EPA 300.0
Sulfate	15.3	mg/L	02/26/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	516.2	mg/L	03/01/2021	KCWELLS	SM 2540C
pH	6.27	SU	02/24/2021	DEW/ATH	
Spec. Cond.	738	uS	02/24/2021	DEW/ATH	
Dissolved Oxygen	0.740	ppm	02/24/2021	DEW/ATH	
Oxidation Reduction Potential	-6.00	mv	02/24/2021	DEW/ATH	SM2580
Temp	19.63	C	02/24/2021	DEW/ATH	
Turbidity	15.3	NTU	02/24/2021	DEW/ATH	
Depth	6.09	Feet	02/24/2021	DEW/ATH	
Elevation	13.34	Feet	03/08/2021	DEWEST	
Aluminum	<0.10	mg/L	03/08/2021	SJHATCHE	EPA 6020B
Magnesium	14.7	mg/L	03/09/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	03/09/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09052 **Location:** GW Well WAP-3 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-3 **Time:** 12:35

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Barium	157	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Boron	1700	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	247	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Iron	20900	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Lead	<1.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B
Radium 226	2.08	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	1.13	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.21	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	233	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	0.11	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	175	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1152	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	6.18	SU	07/29/2021	BRT/MDG	
Spec. Cond.	1420	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.410	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	-52.0	mv	07/29/2021	BRT/MDG	SM2580
Temp	29.29	C	07/29/2021	BRT/MDG	
Turbidity	4.70	NTU	07/29/2021	BRT/MDG	
Depth	6.77	Feet	07/29/2021	BRT/MDG	
Elevation	12.66	Feet	08/18/2021	MDGOINGS	
Aluminum	0.11	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Magnesium	15.3	mg/L	08/24/2021	SJHATCHE	EPA 6020B
Zinc	<10.0	ug/L	08/24/2021	SJHATCHE	EPA 6020B

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96391 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 **Time:** 13:09

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4900.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	279	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.65	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	1.53	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.18	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	900	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1772	mg/L	03/09/2021	KCWELLS	SM 2540C
pH	4.99	SU	03/04/2021	DEW/ML	
Spec. Cond.	2130	uS	03/04/2021	DEW/ML	
Dissolved Oxygen	0.480	ppm	03/04/2021	DEW/ML	
Oxidation Reduction Potential	135	mv	03/04/2021	DEW/ML	SM2580
Temp	20.21	C	03/04/2021	DEW/ML	
Turbidity	0	NTU	03/04/2021	DEW/ML	
Depth	6.87	Feet	03/04/2021	DEW/ML	
Elevation	23.97	Feet	03/08/2021	DEWEST	
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96392 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 Duplicate **Time:** 13:14

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4800.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	269	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.42	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	3.31	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.72	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	903	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1680	mg/L	03/09/2021	KCWELLS	SM 2540C
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09062 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 **Time:** 13:54

Analysis	Result	Units	Test Date	Analyst	Method
Barium	15.6	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	370	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	29.3	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.579	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.261	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.840	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	21.5	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	74.9	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	172.5	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	4.54	SU	07/29/2021	BRT/MDG	
Spec. Cond.	201	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.390	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	194	mv	07/29/2021	BRT/MDG	SM2580
Temp	30.55	C	07/29/2021	BRT/MDG	
Turbidity	0	NTU	07/29/2021	BRT/MDG	
Depth	9.02	Feet	07/29/2021	BRT/MDG	
Elevation	21.82	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09063 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 DUP **Time:** 13:59

Analysis	Result	Units	Test Date	Analyst	Method
Barium	17.0	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	390	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	32.6	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.216	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.28	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.50	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	26.2	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	83.6	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	176.2	mg/L	08/10/2021	SJBROWN	SM 2540C

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96391 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 **Time:** 13:09

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4900.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	279	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.65	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	1.53	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.18	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	900	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1772	mg/L	03/09/2021	KCWELLS	SM 2540C
pH	4.99	SU	03/04/2021	DEW/ML	
Spec. Cond.	2130	uS	03/04/2021	DEW/ML	
Dissolved Oxygen	0.480	ppm	03/04/2021	DEW/ML	
Oxidation Reduction Potential	135	mv	03/04/2021	DEW/ML	SM2580
Temp	20.21	C	03/04/2021	DEW/ML	
Turbidity	0	NTU	03/04/2021	DEW/ML	
Depth	6.87	Feet	03/04/2021	DEW/ML	
Elevation	23.97	Feet	03/08/2021	DEWEST	
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

santee cooper

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Moncks Corner, SC 29461-2901
(843) 761-8000

SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96392 **Location:** GW Well WAP-12 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-12 Duplicate **Time:** 13:14

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4800.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	269	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.42	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	3.31	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.72	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	252	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	903	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1680	mg/L	03/09/2021	KCWELLS	SM 2540C
Barium	23.6	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09062 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 **Time:** 13:54

Analysis	Result	Units	Test Date	Analyst	Method
Barium	15.6	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	370	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	29.3	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.579	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.261	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.840	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	21.5	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	74.9	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	172.5	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	4.54	SU	07/29/2021	BRT/MDG	
Spec. Cond.	201	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.390	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	194	mv	07/29/2021	BRT/MDG	SM2580
Temp	30.55	C	07/29/2021	BRT/MDG	
Turbidity	0	NTU	07/29/2021	BRT/MDG	
Depth	9.02	Feet	07/29/2021	BRT/MDG	
Elevation	21.82	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09063 **Location:** GW Well WAP-12 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-12 DUP **Time:** 13:59

Analysis	Result	Units	Test Date	Analyst	Method
Barium	17.0	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	390	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	32.6	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	0.216	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.28	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.50	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	26.2	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	83.6	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	176.2	mg/L	08/10/2021	SJBROWN	SM 2540C

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF09064 **Location:** GW Well WAP-13 **Date:** 07/29/2021 **Sample Collector:** MDG/BRT

Loc. Code WAP-13 **Time:** 11:29

Analysis	Result	Units	Test Date	Analyst	Method
Barium	279	ug/L	08/27/2021	SJHATCHE	EPA 6020B
Boron	4200	ug/L	08/17/2021	R&C	EPA 6010D
Calcium	418	mg/L	08/27/2021	SJHATCHE	EPA 6020B
Radium 226	1.16	pCi/L	08/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.68	pCi/L	08/17/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.83	pCi/L	08/25/2021	GEL	EPA 903.1 Mod
Chloride	665	mg/L	08/11/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	08/11/2021	KCWELLS	EPA 300.0
Sulfate	107	mg/L	08/11/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2144	mg/L	08/10/2021	SJBROWN	SM 2540C
pH	6.40	SU	07/29/2021	BRT/MDG	
Spec. Cond.	2950	uS	07/29/2021	BRT/MDG	
Dissolved Oxygen	0.500	ppm	07/29/2021	BRT/MDG	
Oxidation Reduction Potential	-101	mv	07/29/2021	BRT/MDG	SM2580
Temp	24.80	C	07/29/2021	BRT/MDG	
Turbidity	0	NTU	07/29/2021	BRT/MDG	
Depth	6.24	Feet	07/29/2021	BRT/MDG	
Elevation	15.73	Feet	08/18/2021	MDGOINGS	

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

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SANTEE COOPER ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AE96393 **Location:** GW Well WAP-13 **Date:** 03/04/2021 **Sample Collector:** DEW/ML

Loc. Code WAP-13 **Time:** 11:55

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Beryllium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Boron	4400.0	ug/L	03/15/2021	R&C	EPA 6010D
Calcium	472	mg/L	03/22/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Cobalt	<0.50	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	03/12/2021	R&C	EPA 7470
Lithium	<10	ug/L	03/11/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	03/11/2021	R&C	EPA 6010D
Lead	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	03/22/2021	SJHATCHE	EPA 6020B
Radium 226	1.40	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Radium 228	1.96	pCi/L	03/23/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.36	pCi/L	04/01/2021	GEL	EPA 903.1 Mod
Chloride	645	mg/L	03/10/2021	KCWELLS	EPA 300.0
Fluoride	<0.10	mg/L	03/10/2021	KCWELLS	EPA 300.0
Sulfate	151	mg/L	03/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2238	mg/L	03/09/2021	KCWELLS	SM 2540C
pH	6.32	SU	03/04/2021	DEW/ML	
Spec. Cond.	3110	uS	03/04/2021	DEW/ML	
Dissolved Oxygen	0.560	ppm	03/04/2021	DEW/ML	
Oxidation Reduction Potential	-66.0	mv	03/04/2021	DEW/ML	SM2580
Temp	19.88	C	03/04/2021	DEW/ML	
Turbidity	0	NTU	03/04/2021	DEW/ML	
Depth	5.19	Feet	03/04/2021	DEW/ML	
Elevation	16.78	Feet	03/08/2021	DEWEST	
Barium	274	ug/L	03/22/2021	SJHATCHE	EPA 6010D

Comments:

Independent Laboratory Results: "GEL" - GEL Laboratories LLC - Lab ID # 10120; "Test America" - TestAmerica Laboratories, Inc. - Lab ID# 98001; "DavisBrown"- Davis & Brown Lab ID # 21117; "Shealy"- Shealy Environmental Services, Inc.- Lab ID# 32010 "ROGERSCALLCO"- Rogers & Callcot, Inc.- Lab ID # 23105001

Analysis Validated: Linda Williams

Linda Williams - Supervisor Analytical Services

Rogers & Callcott ENVIRONMENTAL

Laboratory Services

Laboratory Report

Client	Santee Cooper Linda Williams 1 Riverwood Dr. Moncks Corner, SC 29461	**Project:** **Work Order:** **Received:**	Ground Water 1021082 02/19/2021 10:20

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on February 19, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Karen Upshur, your Project Manager, at kupshur@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Report Approved By:

Karen Upshur
Project Manager

PO Box 5655 | Greenville, SC 29606 | 426 Fairforest Way | Greenville, SC 29607 | main 864.232.1556 | fax 864.232.6140 rogersandcallcott.com
an employee-owned company

Rogers & Callcott ENVIRONMENTAL

South Carolina Greenville Laboratory Identification 23105
South Carolina Columbia Laboratory Identification 40572
North Carolina Laboratory Certification Number 27
North Carolina Drinking Water Lab Number 45710
NELAP Utah Certificate Number SC000042014-1
Georgia Drinking Water Lab ID 880

Certificate of Analysis

Client Santee Cooper
Linda Williams
1 Riverwood Dr.
Moncks Corner, SC 29461

Project: Ground Water
Work Order: 1021082
Received: 02/19/2021 10:20

Sample Number	Sample Description	Matrix	Sampled	Type
1021082-01	AE96379 WAP-1	Ground Water	02/15/21 13:37	Grab
1021082-02	AE96380 WAP-2	Ground Water	02/15/21 14:40	Grab
1021082-03	AE96412 WBW-1	Ground Water	02/15/21 12:21	Grab
1021082-04	AE96403 WAP-18	Ground Water	02/16/21 11:33	Grab
1021082-05	AE96404 WAP-19	Ground Water	02/16/21 14:25	Grab
1021082-06	AE96405 WAP-20	Ground Water	02/16/21 15:30	Grab
1021082-07	AE96407 WAP-22	Ground Water	02/16/21 13:13	Grab
1021082-08	AE96388 WAP-10	Ground Water	02/17/21 13:57	Grab
1021082-09	AE96389 WAP-10 DUP	Ground Water	02/17/21 14:02	Grab
1021082-10	AE96406 WAP-21	Ground Water	02/17/21 12:35	Grab
1021082-11	AE96408 WAP-23	Ground Water	02/17/21 11:26	Grab

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1021082
Moncks Corner, SC 29461		Reported:	02/26/21 13:41

Sample Data

Sample Number 1021082-01
Sample Description AE96379 WAP-1 collected on 02/15/21 13:37

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:43	EPA 7470A		MLR	B1B1040
Boron	**24**	15	ug/L	1.00	02/23/21 19:06	EPA 6010D		MLR	B1B1006
Lithium	ND	10	ug/L	1.00	02/23/21 19:06	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 19:06	EPA 6010D		MLR	B1B1006

Sample Number 1021082-02
Sample Description AE96380 WAP-2 collected on 02/15/21 14:40

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:23	EPA 7470A	S7	MLR	B1B1040
Lithium	**13**	10	ug/L	1.00	02/23/21 20:20	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:20	EPA 6010D		MLR	B1B1006

Sample Number 1021082-03
Sample Description AE96412 WBW-1 collected on 02/15/21 12:21

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:45	EPA 7470A		MLR	B1B1040
Boron	ND	15	ug/L	1.00	02/23/21 19:26	EPA 6010D		MLR	B1B1006
Lithium	ND	10	ug/L	1.00	02/23/21 19:26	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 19:26	EPA 6010D		MLR	B1B1006

Sample Number 1021082-04
Sample Description AE96403 WAP-18 collected on 02/16/21 11:33

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:54	EPA 7470A		MLR	B1B1040
Boron	**7500**	15	ug/L	1.00	02/23/21 20:03	EPA 6010D		MLR	B1B1006
Lithium	**540**	10	ug/L	1.00	02/23/21 20:03	EPA 6010D		MLR	B1B1006
Molybdenum	**2900**	10	ug/L	1.00	02/23/21 20:03	EPA 6010D		MLR	B1B1006

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1021082
Moncks Corner, SC 29461		Reported:	02/26/21 13:41

Sample Number 1021082-05
Sample Description AE96404 WAP-19 collected on 02/16/21 14:25

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:57	EPA 7470A		MLR	B1B1040
Boron	**3500**	15	ug/L	1.00	02/23/21 20:07	EPA 6010D		MLR	B1B1006
Lithium	**290**	10	ug/L	1.00	02/23/21 20:07	EPA 6010D		MLR	B1B1006
Molybdenum	**41**	10	ug/L	1.00	02/23/21 20:07	EPA 6010D		MLR	B1B1006

Sample Number 1021082-06
Sample Description AE96405 WAP-20 collected on 02/16/21 15:30

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:00	EPA 7470A		MLR	B1B1040
Boron	**570**	15	ug/L	1.00	02/23/21 20:11	EPA 6010D		MLR	B1B1006
Lithium	**290**	10	ug/L	1.00	02/23/21 20:11	EPA 6010D		MLR	B1B1006
Molybdenum	**140**	10	ug/L	1.00	02/23/21 20:11	EPA 6010D		MLR	B1B1006

Sample Number 1021082-07
Sample Description AE96407 WAP-22 collected on 02/16/21 13:13

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**43**	10	ug/L	1.00	02/23/21 20:33	EPA 6010D		MLR	B1B1006

Sample Number 1021082-08
Sample Description AE96388 WAP-10 collected on 02/17/21 13:57

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:02	EPA 7470A	S7	MLR	B1B1040
Lithium	**26**	10	ug/L	1.00	02/23/21 20:24	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:24	EPA 6010D		MLR	B1B1006

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1021082
Moncks Corner, SC 29461		Reported:	02/26/21 13:41

Sample Number 1021082-09
Sample Description AE96389 WAP-10 DUP collected on 02/17/21 14:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:05	EPA 7470A	S7	MLR	B1B1040
Lithium	**25**	10	ug/L	1.00	02/23/21 20:28	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:28	EPA 6010D		MLR	B1B1006

Sample Number 1021082-10
Sample Description AE96406 WAP-21 collected on 02/17/21 12:35

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 12:08	EPA 7470A		MLR	B1B1040
Boron	**2400**	15	ug/L	1.00	02/23/21 20:15	EPA 6010D		MLR	B1B1006
Lithium	ND	10	ug/L	1.00	02/23/21 20:15	EPA 6010D		MLR	B1B1006
Molybdenum	ND	10	ug/L	1.00	02/23/21 20:15	EPA 6010D		MLR	B1B1006

Sample Number 1021082-11
Sample Description AE96408 WAP-23 collected on 02/17/21 11:26

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**11**	10	ug/L	1.00	02/23/21 20:37	EPA 6010D		MLR	B1B1006

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1021082
Moncks Corner, SC 29461		Reported:	02/26/21 13:41

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1B1006 - EPA 3005A										
Blank (B1B1006-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1B1006-BS1)										
Boron	250	15	ug/L	250		98	80-120			
Lithium	255	10	ug/L	250		102	80-120			
Molybdenum	240	10	ug/L	250		97	80-120			
LCS Dup (B1B1006-BSD1)										
Boron	250	15	ug/L	250		99	80-120	0.8	20	
Lithium	257	10	ug/L	250		103	80-120	0.7	20	
Molybdenum	250	10	ug/L	250		99	80-120	2	20	
Matrix Spike (B1B1006-MS1)	**Source: 1021082-01**									
Boron	250	15	ug/L	250	24	92	75-125			
Lithium	253	10	ug/L	250	ND	101	75-125			
Molybdenum	230	10	ug/L	250	ND	93	75-125			
Matrix Spike (B1B1006-MS2)	**Source: 1021082-03**									
Boron	260	15	ug/L	250	ND	97	75-125			
Lithium	262	10	ug/L	250	ND	105	75-125			
Molybdenum	240	10	ug/L	250	ND	97	75-125			
Matrix Spike Dup (B1B1006-MSD1)	**Source: 1021082-01**									
Boron	270	15	ug/L	250	24	99	75-125	6	20	
Lithium	268	10	ug/L	250	ND	107	75-125	6	20	
Molybdenum	250	10	ug/L	250	ND	99	75-125	6	20	
Matrix Spike Dup (B1B1006-MSD2)	**Source: 1021082-03**									
Boron	260	15	ug/L	250	ND	98	75-125	0.4	20	
Lithium	264	10	ug/L	250	ND	105	75-125	0.5	20	
Molybdenum	240	10	ug/L	250	ND	98	75-125	1	20	

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1021082
Moncks Corner, SC 29461		Reported:	02/26/21 13:41

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1B1040 - EPA 7470A										
Blank (B1B1040-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1B1040-BS1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120			
LCS Dup (B1B1040-BSD1)										
Mercury	4.9	0.20	ug/L	5.00		98	80-120	2	20	
Matrix Spike (B1B1040-MS2)	**Source: 1021082-02**									
Mercury	4.1	0.20	ug/L	5.00	ND	82	75-125			S7
Matrix Spike Dup (B1B1040-MSD2)	**Source: 1021082-02**									
Mercury	4.1	0.20	ug/L	5.00	ND	82	75-125	0.6	20	S7

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1021082
Moncks Corner, SC 29461		Reported:	02/26/21 13:41

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst
EPA 3005A ICP Digestion				
EPA 3005A	B1B1006	1021082-01	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-02	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-03	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-04	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-05	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-06	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-07	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-08	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-09	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-10	02/22/2021 10:53	MTH
EPA 3005A	B1B1006	1021082-11	02/22/2021 10:53	MTH
EPA 7470A Mercury Digestion				
EPA 7470A	B1B1040	1021082-01	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-02	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-03	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-04	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-05	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-06	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-08	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-09	02/22/2021 16:38	MLR
EPA 7470A	B1B1040	1021082-10	02/22/2021 16:38	MLR

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1021082
Moncks Corner, SC 29461		Reported:	02/26/21 13:41

Data Qualifiers and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported
RPD	Relative Percent Difference
S7	Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Contract Lab Info: R/C Contract Lab Due Date (Lab Only): 2 / 26 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.GW1 / 36500

Rerun request for any flagged QC Yes No

1021082

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix (see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	Li	Mo	Hg
AE96379	WAP-1	2/15/21	1337	MDE/DFN	1	P	G	GW	2	-01	X	X	X	X
AE96380	WAP-2	2/15/21	1440	|	|	|	|	|	|	-02		X	X	X
AE96412	WBW-1	2/15/21	1221	|	|	|	|	|	|	-03	X	X	X	X
AE96403	WAP-18	2/16/21	1133	|	|	|	|	|	|	-04	X	X	X	X
AE96404	WAP-19	|	1425	|	|	|	|	|	|	-05	X	X	X	X
AE96405	WAP-20	|	1530	|	|	|	|	|	|	-06	X	X	X	X
AE96407	WAP-22	2/16/21	1313	|	|	|	|	|	|	-07		X		

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	2/18/21	1400	FEDEX			
FEDEX				GC		2/19/21	1020

Sample Receiving (Internal Use Only)
TEMP (°C): 9.6 **Initial:** ______
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
☐ Trans. Oil Qual.
☐ %Moisture
☐ Color
☐ Acidity
☐ Dielectric Strength
☐ IFT
☐ Dissolved Gases
Used Oil
☐ Flashpoint
☐ Metals in oil (As,Cd,Cr,Ni,Pb,Hg)
☐ TX
☐ GOFER

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Contract Lab Info: R/C   Contract Lab Due Date (Lab Only): 2 / 26 / 21   Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC Yes No

1021082

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	Li	Mo	Hg
AE96388	WAP-10	2/17/21	1357	DEW/BSB	1	P	G	GW	2	-08		X	X	X
AE96389	WAP-10 DUP	↓	1402	↓	↓	|	|	|	|	-09		X	X	X
AE96406	WAP-21	2/17/21	1235	|	|	|	|	|	|	-10	X	X	X	X
AE96408	WAP-23	↓	1126	↓	↓	↓	↓	↓	↓	-11		X		

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	2/18/21	1400				
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 9.6 **Initial:** ______
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)		
☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
Trans. Oil Quality
Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
Used Oil
Flashpoint
Metals in Oil
PCB
Hg
CX
GOFER

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Rogers & Callcott ENVIRONMENTAL

Sample Receipt Verification

Client: Santee Cooper Date Received: 2/24/21 Work Order: 1021247

Carrier Name: Client (FedEx) UPS US Mail Courier Field Services Other: _____

Tracking Number: 816240672635

Receipt Criteria	Yes	No	NA	Comments
Shipping container / cooler intact?	X			Damaged Leaking Other:
Custody seals intact?			X	
COC included with samples?	X			
COC signed when relinquished and received?	X			
Sample bottles intact?	X			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?	X			
Date / time on COC agree with label on bottle(s)?	X			
Number of bottles on COC agrees with number of bottles received?	X			
Samples received within holding time?	X			
Sample volume sufficient for analysis?	X			
VOA vials free of headspace (<6mm bubble)?			X	
Samples cooled? Temp at receipt recorded on COC; Temp measured with IR thermometer - SN: 97050067			X	Ice Cold Packs Dry Ice (None)
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in the lab. Note: Samples for O&G and VOA analysis – preservation checked at bench.	X			
Samples dechlorinated for parameters requiring chlorine removal at the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA, and HAA analysis.			X	

If in-house preservation used – record Lot #			
HCL		H_3PO_4	
H_2SO_4		NaOH	
HNO_3		Other	

Comments:

Were non-conformance issues noted at sample receipt? Yes or (No)

Non-Conformance issue other than noted above:

Rogers & Callcott ENVIRONMENTAL

Laboratory Services

Laboratory Report

Client	Santee Cooper Linda Williams 1 Riverwood Dr. Moncks Corner, SC 29461	**Project:** **Work Order:** **Received:**	Ground Water 1030283 03/03/2021 13:20

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on March 03, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Report Approved By:

Lauren Hollister

Lauren Hollister
Project Manager

PO Box 5655 | Greenville, SC 29606 | 426 Fairforest Way | Greenville, SC 29607 | main 864.232.1556 | fax 864.232.6140 rogersandcallcott.com
an employee-owned company

Rogers & Callcott ENVIRONMENTAL

South Carolina Greenville Laboratory Identification 23105
South Carolina Columbia Laboratory Identification 40572
North Carolina Laboratory Certification Number 27
North Carolina Drinking Water Lab Number 45710
NELAP Utah Certificate Number SC000042014-1
Georgia Drinking Water Lab ID 880

Certificate of Analysis

Client Santee Cooper
Linda Williams
1 Riverwood Dr.
Moncks Corner, SC 29461

Project: Ground Water
Work Order: 1030283
Received: 03/03/2021 13:20

Sample Number	Sample Description	Matrix	Sampled	Type
1030283-01	AE96387 WAP-9	Ground Water	02/23/21 12:49	Grab
1030283-02	AE96382 WAP-4	Ground Water	02/23/21 14:28	Grab
1030283-03	AE96385 WAP-7	Ground Water	02/24/21 11:02	Grab
1030283-04	AE96381 WAP-3	Ground Water	02/24/21 13:18	Grab
1030283-05	AE96398 WAP-14C	Ground Water	02/25/21 12:20	Grab
1030283-06	AE96397 WAP-14B	Ground Water	02/25/21 13:56	Grab
1030283-07	AE96396 WAP-14C	Ground Water	02/25/21 14:46	Grab
1030283-08	AE96394 WAP-14	Ground Water	02/25/21 11:10	Grab
1030283-09	AE96395 WAP-14DUP	Ground Water	02/25/21 11:15	Grab
1030283-10	AE96399 WAP-15	Ground Water	02/25/21 15:40	Grab

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030283
Moncks Corner, SC 29461		Reported:	03/11/21 09:01

Sample Data

Sample Number 1030283-01
Sample Description AE96387 WAP-9 collected on 02/23/21 12:49

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:10	EPA 7470A		MLR	B1C0396
Lithium	**69**	10	ug/L	1.00	03/04/21 17:43	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:43	EPA 6010D		MLR	B1C0267

Sample Number 1030283-02
Sample Description AE96382 WAP-4 collected on 02/23/21 14:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:12	EPA 7470A		MLR	B1C0396
Lithium	ND	10	ug/L	1.00	03/04/21 17:47	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:47	EPA 6010D		MLR	B1C0267

Sample Number 1030283-03
Sample Description AE96385 WAP-7 collected on 02/24/21 11:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:15	EPA 7470A		MLR	B1C0396
Lithium	ND	10	ug/L	1.00	03/04/21 17:51	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:51	EPA 6010D		MLR	B1C0267

Sample Number 1030283-04
Sample Description AE96381 WAP-3 collected on 02/24/21 13:18

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:26	EPA 7470A		MLR	B1C0396
Lithium	ND	10	ug/L	1.00	03/04/21 17:55	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 17:55	EPA 6010D		MLR	B1C0267

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030283
Moncks Corner, SC 29461		Reported:	03/11/21 09:01

Sample Number 1030283-05
Sample Description AE96398 WAP-14C collected on 02/25/21 12:20

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/04/21 17:20	EPA 6010D		MLR	B1C0267

Sample Number 1030283-06
Sample Description AE96397 WAP-14B collected on 02/25/21 13:56

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**12**	10	ug/L	1.00	03/04/21 17:59	EPA 6010D		MLR	B1C0267

Sample Number 1030283-07
Sample Description AE96396 WAP-14C collected on 02/25/21 14:46

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**36**	10	ug/L	1.00	03/04/21 18:03	EPA 6010D		MLR	B1C0267

Sample Number 1030283-08
Sample Description AE96394 WAP-14 collected on 02/25/21 11:10

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:29	EPA 7470A		MLR	B1C0396
Boron	**6000**	150	ug/L	10.0	03/04/21 18:22	EPA 6010D		MLR	B1C0267
Lithium	ND	10	ug/L	1.00	03/04/21 18:37	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 18:37	EPA 6010D		MLR	B1C0267

Sample Number 1030283-09
Sample Description AE96395 WAP-14DUP collected on 02/25/21 11:15

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:32	EPA 7470A		MLR	B1C0396
Boron	**6200**	150	ug/L	10.0	03/04/21 18:26	EPA 6010D		MLR	B1C0267
Lithium	ND	10	ug/L	1.00	03/04/21 18:41	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 18:41	EPA 6010D		MLR	B1C0267

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030283
Moncks Corner, SC 29461		Reported:	03/11/21 09:01

Sample Number 1030283-10
Sample Description AE96399 WAP-15 collected on 02/25/21 15:40

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/08/21 13:35	EPA 7470A		MLR	B1C0396
Boron	**3400**	15	ug/L	1.00	03/04/21 18:45	EPA 6010D		MLR	B1C0267
Lithium	**23**	10	ug/L	1.00	03/04/21 18:45	EPA 6010D		MLR	B1C0267
Molybdenum	ND	10	ug/L	1.00	03/04/21 18:45	EPA 6010D		MLR	B1C0267

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030283
Moncks Corner, SC 29461		Reported:	03/11/21 09:01

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0267 - EPA 200.7										
Blank (B1C0267-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1C0267-BS1)										
Boron	240	15	ug/L	250		96	80-120			
Lithium	266	10	ug/L	250		106	80-120			
Molybdenum	220	10	ug/L	250		89	80-120			
LCS Dup (B1C0267-BSD1)										
Boron	250	15	ug/L	250		100	80-120	5	20	
Lithium	264	10	ug/L	250		106	80-120	0.7	20	
Molybdenum	230	10	ug/L	250		94	80-120	5	20	
Matrix Spike (B1C0267-MS1)	**Source: 1030283-05**									
Boron	680	15	ug/L	250	400	109	75-125			
Lithium	286	10	ug/L	250	ND	112	75-125			
Molybdenum	230	10	ug/L	250	ND	94	75-125			
Matrix Spike Dup (B1C0267-MSD1)	**Source: 1030283-05**									
Boron	680	15	ug/L	250	400	110	75-125	0.6	20	
Lithium	283	10	ug/L	250	ND	110	75-125	1	20	
Molybdenum	240	10	ug/L	250	ND	98	75-125	4	20	
Post Spike (B1C0267-PS1)	**Source: 1030283-05**									
Boron	0.91		mg/L	0.500	ND	101	75-125			
Lithium	0.531		mg/L	0.500	ND	105	75-125			
Molybdenum	0.47		mg/L	0.500	ND	94	75-125			
Batch B1C0396 - EPA 7470A										
Blank (B1C0396-BLK1)										
Mercury	ND	0.20	ug/L							

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030283
Moncks Corner, SC 29461		Reported:	03/11/21 09:01

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0396 - EPA 7470A										
LCS (B1C0396-BS1)										
Mercury	5.0	0.20	ug/L	5.00		100	80-120			
LCS Dup (B1C0396-BSD1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120	1	20	
Matrix Spike (B1C0396-MS1)	**Source: 1030283-03**									
Mercury	4.8	0.20	ug/L	5.00	ND	97	75-125			
Matrix Spike Dup (B1C0396-MSD1)	**Source: 1030283-03**									
Mercury	5.0	0.20	ug/L	5.00	ND	100	75-125	3	20	
Post Spike (B1C0396-PS1)	**Source: 1030283-03**									
Mercury	4.0		ug/L	4.00	ND	99	80-120			

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030283
Moncks Corner, SC 29461		Reported:	03/11/21 09:01

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst
EPA 200.7 Metal Digestion				
EPA 200.7	B1C0267	1030283-01	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-02	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-03	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-04	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-05	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-06	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-07	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-08	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-09	03/04/2021 15:59	MTH
EPA 200.7	B1C0267	1030283-10	03/04/2021 15:59	MTH
EPA 7470A Mercury Digestion				
EPA 7470A	B1C0396	1030283-01	03/05/2021 13:44	ELN
EPA 7470A	B1C0396	1030283-02	03/05/2021 13:44	ELN
EPA 7470A	B1C0396	1030283-03	03/05/2021 13:44	ELN
EPA 7470A	B1C0396	1030283-04	03/05/2021 13:44	ELN
EPA 7470A	B1C0396	1030283-08	03/05/2021 13:44	ELN
EPA 7470A	B1C0396	1030283-09	03/05/2021 13:44	ELN
EPA 7470A	B1C0396	1030283-10	03/05/2021 13:44	ELN

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030283
Moncks Corner, SC 29461		Reported:	03/11/21 09:01

Data Qualifiers and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported
RPD	Relative Percent Difference

Contract Lab Info: R/C Contract Lab Due Date (Lab Only): 3 / 10 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

santee cooper®
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC Yes No

1030283

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	Li	Mo	Hg
AE96387	WAP-9	2/23/21	1249	DEW/MOG	1	P	G	GW	2	-01		X	X	X
AE96382	WAP-4	↓	1428	↓	↓	↓	↓	↓	↓	-02		X	X	X
AE96385	WAP-7	2/24/21	1102	DEW/ATH	|	|	|	|	|	-03		X	X	X
AE96381	WAP-3	↓	1318	↓	↓	↓	↓	↓	↓	-04		X	X	X
AE96398	WAP-14C	2/25/21	1220	DEW/MOG	|	|	|	|	|	-05		X		
AE96397	WAP-14B	|	1356	|	|	|	|	|	|	-06		X		
AE96396	WAP-14C	↓	1446	↓	↓	↓	↓	↓	↓	-07		X		
AE96394	WAP-14	2/25/21	1110	DEW/MTE	|	|	|	|	|	-08	X	X	X	X
AE96395	WAP-14 DUP	|	1115	|	|	|	|	|	|	-09	X	X	X	X
AE96399	WAP-15	↓	1540	↓	↓	↓	↓	↓	↓	-10	X	X	X	X

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
[signature]	35594	3/2/21	1500	FEDEX			
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
FEDEX				[signature]		3/3/21	1320
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 10.0 Initial: [initials]
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
TOC
DOC
TP TPCH
NH3-N
F
Cl
NO2
Br
NO3
SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum *(all below)*
AIM
TOC
☐ Total metals
Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
Trans. Oil Qual.
% Moisture
Color
Acidity
Interfacial Tension
IFT
Dissolved Gases
Used Oil
Flashpoint
Metals in oil
(As, Cd, Cr, Pb)
Hg
Cl
OTHER

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Rogers & Callcott ENVIRONMENTAL

Sample Receipt Verification

Client: Santee Cooper | Date Received: 03/03/21 | Work Order: 1030283

Carrier Name: Client (FedEx) UPS US Mail Courier Field Services Other: _____

Tracking Number: 816240672657

Receipt Criteria	Yes	No	NA	Comments
Shipping container / cooler intact?	X			Damaged Leaking Other:
Custody seals intact?			X	
COC included with samples?	X			
COC signed when relinquished and received?	X			
Sample bottles intact?	X			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?	X			
Date / time on COC agree with label on bottle(s)?	X			
Number of bottles on COC agrees with number of bottles received?	X			
Samples received within holding time?	X			
Sample volume sufficient for analysis?	X			
VOA vials free of headspace (<6mm bubble)?			X	
Samples cooled? Temp at receipt recorded on COC; Temp measured with IR thermometer - SN: 97050067			X	Ice Cold Packs Dry Ice (None)
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in the lab. Note: Samples for O&G and VOA analysis – preservation checked at bench.	X			
Samples dechlorinated for parameters requiring chlorine removal at the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA, and HAA analysis.			X	

If in-house preservation used – record Lot #			
HCL		H_3PO_4	
H_2SO_4		NaOH	
HNO_3		Other	

Comments:

Were non-conformance issues noted at sample receipt? Yes or (No)

Non-Conformance issue other than noted above:

Rogers & Callcott ENVIRONMENTAL

Laboratory Services

Laboratory Report

Client	Santee Cooper Linda Williams 1 Riverwood Dr. Moncks Corner, SC 29461	**Project:** **Work Order:** **Received:**	Ground Water 1030536 03/09/2021 12:55

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on March 09, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Report Approved By:

Lauren Hollister

Lauren Hollister
Project Manager

PO Box 5655 | Greenville, SC 29606 | 426 Fairforest Way | Greenville, SC 29607 | main 864.232.1556 | fax 864.232.6140 rogersandcallcott.com
an employee-owned company

Rogers & Callcott ENVIRONMENTAL

South Carolina Greenville Laboratory Identification 23105
South Carolina Columbia Laboratory Identification 40572
North Carolina Laboratory Certification Number 27
North Carolina Drinking Water Lab Number 45710
NELAP Utah Certificate Number SC000042014-1
Georgia Drinking Water Lab ID 880

Certificate of Analysis

Client Santee Cooper
Linda Williams
1 Riverwood Dr.
Moncks Corner, SC 29461

Project: Ground Water
Work Order: 1030536
Received: 03/09/2021 12:55

Sample Number	Sample Description	Matrix	Sampled	Type
1030536-01	AE96413 WBW-A1-1	Ground Water	03/01/21 10:05	Grab
1030536-02	AE96417 WLF-A1-4	Ground Water	03/01/21 11:10	Grab
1030536-03	AE96418 WLF-A1-4 dup	Ground Water	03/01/21 11:15	Grab
1030536-04	AE96416 WLF-A1-3	Ground Water	03/01/21 12:31	Grab
1030536-05	AE96415 WLF-A1-2	Ground Water	03/01/21 13:48	Grab
1030536-06	AE96401 WAP-17	Ground Water	03/02/21 10:48	Grab
1030536-07	AE96402 WAP-17 DUP	Ground Water	03/02/21 10:53	Grab
1030536-08	AE96414 WLF-A1-1	Ground Water	03/02/21 12:53	Grab
1030536-09	AE96419 WLF-A1-5	Ground Water	03/02/21 14:01	Grab
1030536-10	AE96409 WAP-24	Ground Water	03/02/21 11:28	Grab
1030536-11	AE96411 WAP-26	Ground Water	03/02/21 15:13	Grab
1030536-12	AE96410 WAP-25	Ground Water	03/04/21 10:36	Grab
1030536-13	AE96393 WAP-13	Ground Water	03/04/21 11:55	Grab
1030536-14	AE96391 WAP-12	Ground Water	03/04/21 13:09	Grab
1030536-15	AE96392 WAP-12 DUP	Ground Water	03/04/21 13:14	Grab
1030536-16	AE96400 WAP-16	Ground Water	03/04/21 14:27	Grab

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Sample Data

Sample Number 1030536-01
Sample Description AE96413 WBW-A1-1 collected on 03/01/21 10:05

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**48**	15	ug/L	1.00	03/15/21 14:30	EPA 6010D		MLR	B1C0515

Sample Number 1030536-02
Sample Description AE96417 WLF-A1-4 collected on 03/01/21 11:10

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**140**	15	ug/L	1.00	03/15/21 15:16	EPA 6010D		MLR	B1C0515

Sample Number 1030536-03
Sample Description AE96418 WLF-A1-4 dup collected on 03/01/21 11:15

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**150**	15	ug/L	1.00	03/15/21 15:20	EPA 6010D		MLR	B1C0515

Sample Number 1030536-04
Sample Description AE96416 WLF-A1-3 collected on 03/01/21 12:31

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**59**	15	ug/L	1.00	03/15/21 15:24	EPA 6010D		MLR	B1C0515

Sample Number 1030536-05
Sample Description AE96415 WLF-A1-2 collected on 03/01/21 13:48

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**120**	15	ug/L	1.00	03/15/21 15:28	EPA 6010D		MLR	B1C0515

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Sample Number 1030536-06
Sample Description AE96401 WAP-17 collected on 03/02/21 10:48

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:27	EPA 7470A		MLR	B1C0646
Boron	**2800**	15	ug/L	1.00	03/15/21 15:49	EPA 6010D		MLR	B1C0515
Lithium	**160**	10	ug/L	1.00	03/11/21 19:11	EPA 6010D		MLR	B1C0515
Molybdenum	**110**	10	ug/L	1.00	03/11/21 19:11	EPA 6010D		MLR	B1C0515

Sample Number 1030536-07
Sample Description AE96402 WAP-17 DUP collected on 03/02/21 10:53

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:29	EPA 7470A		MLR	B1C0646
Boron	**2900**	15	ug/L	1.00	03/15/21 15:53	EPA 6010D		MLR	B1C0515
Lithium	**150**	10	ug/L	1.00	03/11/21 19:15	EPA 6010D		MLR	B1C0515
Molybdenum	**110**	10	ug/L	1.00	03/11/21 19:15	EPA 6010D		MLR	B1C0515

Sample Number 1030536-08
Sample Description AE96414 WLF-A1-1 collected on 03/02/21 12:53

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**1100**	15	ug/L	1.00	03/15/21 15:57	EPA 6010D		MLR	B1C0515

Sample Number 1030536-09
Sample Description AE96419 WLF-A1-5 collected on 03/02/21 14:01

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**1300**	15	ug/L	1.00	03/15/21 16:01	EPA 6010D		MLR	B1C0515

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Sample Number 1030536-10
Sample Description AE96409 WAP-24 collected on 03/02/21 11:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/11/21 19:57	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:57	EPA 6010D		MLR	B1C0515

Sample Number 1030536-11
Sample Description AE96411 WAP-26 collected on 03/02/21 15:13

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/11/21 20:01	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 20:01	EPA 6010D		MLR	B1C0515

Sample Number 1030536-12
Sample Description AE96410 WAP-25 collected on 03/04/21 10:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	03/11/21 20:05	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 20:05	EPA 6010D		MLR	B1C0515

Sample Number 1030536-13
Sample Description AE96393 WAP-13 collected on 03/04/21 11:55

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:32	EPA 7470A	S7	MLR	B1C0646
Boron	**4400**	15	ug/L	1.00	03/15/21 16:05	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 19:27	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:27	EPA 6010D		MLR	B1C0515

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Sample Number 1030536-14
Sample Description AE96391 WAP-12 collected on 03/04/21 13:09

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:35	EPA 7470A	S7	MLR	B1C0646
Boron	**4900**	15	ug/L	1.00	03/15/21 16:09	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 19:30	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:30	EPA 6010D		MLR	B1C0515

Sample Number 1030536-15
Sample Description AE96392 WAP-12 DUP collected on 03/04/21 13:14

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:38	EPA 7470A	S7	MLR	B1C0646
Boron	**4800**	15	ug/L	1.00	03/15/21 16:16	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 19:34	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 19:34	EPA 6010D		MLR	B1C0515

Sample Number 1030536-16
Sample Description AE96400 WAP-16 collected on 03/04/21 14:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	03/12/21 10:49	EPA 7470A		MLR	B1C0646
Boron	**1600**	15	ug/L	1.00	03/15/21 14:53	EPA 6010D		MLR	B1C0515
Lithium	ND	10	ug/L	1.00	03/11/21 16:52	EPA 6010D		MLR	B1C0515
Molybdenum	ND	10	ug/L	1.00	03/11/21 16:52	EPA 6010D		MLR	B1C0515

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0515 - EPA 200.7										
Blank (B1C0515-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1C0515-BS1)										
Boron	280	15	ug/L	250		110	80-120			
Lithium	264	10	ug/L	250		106	80-120			
Molybdenum	240	10	ug/L	250		98	80-120			
LCS Dup (B1C0515-BSD1)										
Boron	250	15	ug/L	250		100	80-120	10	20	
Lithium	250	10	ug/L	250		100	80-120	6	20	
Molybdenum	250	10	ug/L	250		100	80-120	3	20	
Matrix Spike (B1C0515-MS1)	**Source: 1030536-01**									
Boron	290	15	ug/L	250	48	98	75-125			
Lithium	272	10	ug/L	250	ND	109	75-125			
Molybdenum	250	10	ug/L	250	ND	99	75-125			
Matrix Spike (B1C0515-MS2)	**Source: 1030536-16**									
Boron	1800	15	ug/L	250	1600	103	75-125			
Lithium	277	10	ug/L	250	ND	109	75-125			
Molybdenum	240	10	ug/L	250	ND	95	75-125			
Matrix Spike Dup (B1C0515-MSD1)	**Source: 1030536-01**									
Boron	290	15	ug/L	250	48	96	75-125	1	20	
Lithium	263	10	ug/L	250	ND	105	75-125	3	20	
Molybdenum	250	10	ug/L	250	ND	100	75-125	0.3	20	
Matrix Spike Dup (B1C0515-MSD2)	**Source: 1030536-16**									
Boron	1800	15	ug/L	250	1600	113	75-125	1	20	
Lithium	284	10	ug/L	250	ND	112	75-125	2	20	
Molybdenum	240	10	ug/L	250	ND	97	75-125	2	20	

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0515 - EPA 200.7										
Post Spike (B1C0515-PS1)	**Source: 1030536-01**									
Boron	0.53		mg/L	0.500	ND	96	75-125			
Lithium	0.515		mg/L	0.500	ND	103	75-125			
Molybdenum	0.49		mg/L	0.500	ND	98	75-125			
Post Spike (B1C0515-PS2)	**Source: 1030536-16**									
Boron	2.1		mg/L	0.500	ND	103	75-125			
Lithium	0.542		mg/L	0.500	ND	108	75-125			
Molybdenum	0.48		mg/L	0.500	ND	96	75-125			
Batch B1C0646 - EPA 7470A										
Blank (B1C0646-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1C0646-BS1)										
Mercury	4.9	0.20	ug/L	5.00		98	80-120			
LCS Dup (B1C0646-BSD1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120	3	20	
Matrix Spike (B1C0646-MS1)	**Source: 1030536-15**									
Mercury	4.1	0.20	ug/L	5.00	ND	81	75-125			S7
Matrix Spike Dup (B1C0646-MSD1)	**Source: 1030536-15**									
Mercury	4.1	0.20	ug/L	5.00	ND	81	75-125	0	20	S7
Post Spike (B1C0646-PS1)	**Source: 1030536-15**									
Mercury	3.3		ug/L	4.00	ND	82	80-120			S7
Post Spike (B1C0646-PS3)	**Source: 1030536-06**									
Mercury	3.9		ug/L	4.00	ND	98	80-120			
Post Spike (B1C0646-PS4)	**Source: 1030536-07**									
Mercury	3.9		ug/L	4.00	ND	97	80-120			

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1C0646 - EPA 7470A										
Post Spike (B1C0646-PS5)	**Source: 1030536-13**									
Mercury	3.3		ug/L	4.00	ND	82	80-120			S7
Post Spike (B1C0646-PS6)	**Source: 1030536-14**									
Mercury	3.2		ug/L	4.00	ND	81	80-120			S7
Post Spike (B1C0646-PS7)	**Source: 1030536-16**									
Mercury	3.6		ug/L	4.00	ND	89	80-120			

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst
EPA 200.7 Metal Digestion				
EPA 200.7	B1C0515	1030536-01	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-02	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-03	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-04	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-05	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-06	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-07	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-08	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-09	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-10	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-11	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-12	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-13	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-14	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-15	03/10/2021 15:25	MTH
EPA 200.7	B1C0515	1030536-16	03/10/2021 15:25	MTH
EPA 7470A Mercury Digestion				
EPA 7470A	B1C0646	1030536-06	03/10/2021 13:16	ELN
EPA 7470A	B1C0646	1030536-07	03/10/2021 13:16	ELN
EPA 7470A	B1C0646	1030536-13	03/10/2021 13:16	ELN
EPA 7470A	B1C0646	1030536-14	03/10/2021 13:16	ELN
EPA 7470A	B1C0646	1030536-15	03/10/2021 13:16	ELN
EPA 7470A	B1C0646	1030536-16	03/10/2021 13:16	ELN

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1030536
Moncks Corner, SC 29461		Reported:	03/17/21 10:37

Data Qualifiers and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported
RPD	Relative Percent Difference
S7	Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Contract Lab Info: R/C Contract Lab Due Date (Lab Only): 3 / 16 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC (Yes) No

1030536

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	ID	Li	Mo	Hg
AE96413	WBW-A1-1	3/1/21	1005	DEW/ML	1	P	G	GW	2	-01	X			
AE96417	WLF-A1-4	"	1110	"	"	"	"	"	"	-02	X			
AE96418	WLF-A1-4 DUP	"	1115	"	"	"	"	"	"	-03	X			
AE96416	WLF-A1-3	"	1231	"	"	"	"	"	"	-04	X			
AE96415	WLF-A1-2	"	1348	"	"	"	"	"	"	-05	X			
AE96401	WAP-17	3/2/21	1048	DEW TG/DJ	"	"	"	"	"	-06	X	X	X	X
AE96402	WAP-17 DUP	"	1053	"	"	"	"	"	"	-07	X	X	X	X
AE96414	WLF-A1-1	3/2/21	1253	"	"	"	"	"	"	-08	X			
AE96419	WLF-A1-5	"	1401	"	"	"	"	"	"	-09	X			

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
[illegible]	35594	3/8/21	1200	FEDEX			
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
FEDEX				[illegible]		3/9/21	1255
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 17.6 Initial: cm
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TKN
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
As
☐ TSS

Oil
Used Oil

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Contract Lab Info: R/C Contract Lab Due Date (Lab Only): 3 / 16 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC (Yes) No

1030536

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	J	Mo	F
AE96409	WAP-24	3/2/21	1128	DEW DJ	1	P	G	GW	2	-10		X	X	
AE96411	WAP-26	⊥	1513	⊥	⊥	⊥	⊥	⊥	2	-11		X	X	
AE96410	WAP-25	3/4/21	1036	DEW ML	1	⊥	⊥	⊥	2	-12		X	X	
AE96393	WAP-13	|	1155	|	|	|	|	|	|	-13	X	X	X	X
AE96391	WAP-12	|	1309	|	|	|	|	|	|	-14	X	X	X	X
AE96392	WAP-12 DUP	|	1314	|	|	|	|	|	|	-15	X	X	X	X
AE96400	WAP-16	|	1427	|	|	|	|	⊥	⊥	-16	X	X	X	X

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
[signature]	35594	3/8/21	1200	FedEx			
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
FedEx				[signature]		3/9/21	1255
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 14.6 Initial: [initials]
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
TOC
DOC
TP/TPO4
NH3-N
F
Cl
NO2
Br
NO3
SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
Ammonia
LOI
% Carbon
Mineral Analysis
Sieve
% Moisture

NPDES
Oil & Grease
As
TSS

Oil
Trans. Oil Qual.
% Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
Used Oil
Flashpoint
Metals in oil
TX
COFER

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Rogers & Callcott ENVIRONMENTAL

Sample Receipt Verification

Client: Santee Cooper | Date Received: 3/9/21 | Work Order: 1030536

Carrier Name: Client (FedEx) UPS US Mail Courier Field Services Other: _____

Tracking Number: 804137735722

Receipt Criteria	Yes	No	NA	Comments
Shipping container / cooler intact?	X			Damaged Leaking Other:
Custody seals intact?			X	
COC included with samples?	X			
COC signed when relinquished and received?	X			
Sample bottles intact?	X			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?	X			
Date / time on COC agree with label on bottle(s)?	X			
Number of bottles on COC agrees with number of bottles received?	X			
Samples received within holding time?	X			
Sample volume sufficient for analysis?	X			
VOA vials free of headspace (<6mm bubble)?			X	
Samples cooled? Temp at receipt recorded on COC; Temp measured with IR thermometer - SN: 97050067			X	Ice Cold Packs Dry Ice (None)
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in the lab. Note: Samples for O&G and VOA analysis – preservation checked at bench.	X			
Samples dechlorinated for parameters requiring chlorine removal at the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA, and HAA analysis.			X	

If in-house preservation used – record Lot #			
HCL		H_3PO_4	
H_2SO_4		NaOH	
HNO_3		Other	

Comments:

Were non-conformance issues noted at sample receipt? Yes or (No)

Non-Conformance issue other than noted above:

Rogers & Callcott ENVIRONMENTAL

Laboratory Services

Laboratory Report

Client	Santee Cooper Linda Williams 1 Riverwood Dr. Moncks Corner, SC 29461	**Project:** **Work Order:** **Received:**	Ground Water 1080231 08/03/2021 09:15

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on August 03, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Report Approved By:

Lauren Hollister

Lauren Hollister
Project Manager

Rogers & Callcott ENVIRONMENTAL

South Carolina Greenville Laboratory Identification 23105
South Carolina Columbia Laboratory Identification 40572
North Carolina Laboratory Certification Number 27
North Carolina Drinking Water Lab Number 45710
NELAP Utah Certificate Number SC000042014-1
Georgia Drinking Water Lab ID 880

Certificate of Analysis

Client Santee Cooper
Linda Williams
1 Riverwood Dr.
Moncks Corner, SC 29461

Project: Ground Water
Work Order: 1080231
Received: 08/03/2021 09:15

Sample Number	Sample Description	Matrix	Sampled	Type
1080231-01	AF09053 WAP-4	Ground Water	07/19/21 11:24	Grab
1080231-02	AF09070 WAP-15	Ground Water	07/19/21 10:30	Grab
1080231-03	AF09065 WAP-14	Ground Water	07/19/21 14:22	Grab
1080231-04	AF09066 WAP-14 DUP	Ground Water	07/19/21 14:27	Grab
1080231-05	AF09067 WAP-14A	Ground Water	07/19/21 13:46	Grab
1080231-06	AF09069 WAP-14C	Ground Water	07/19/21 15:39	Grab
1080231-07	AF09068 WAP-14B	Ground Water	07/19/21 16:34	Grab
1080231-08	AF09050 WAP-1	Ground Water	07/20/21 12:28	Grab
1080231-09	AF09051 WAP-2	Ground Water	07/20/21 13:28	Grab
1080231-10	AF09083 WBW-1	Ground Water	07/20/21 11:07	Grab

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080231
Moncks Corner, SC 29461		Reported:	08/19/21 22:26

Sample Data

Sample Number 1080231-01
Sample Description AF09053 WAP-4 collected on 07/19/21 11:24

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**180**	15	ug/L	1.00	08/10/21 16:10	EPA 6010D		MLR	B1H0147
Lithium	ND	10	ug/L	1.00	08/10/21 16:10	EPA 6010D		MLR	B1H0147

Sample Number 1080231-02
Sample Description AF09070 WAP-15 collected on 07/19/21 10:30

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**1000**	15	ug/L	1.00	08/10/21 16:13	EPA 6010D		MLR	B1H0147
Lithium	ND	10	ug/L	1.00	08/10/21 16:13	EPA 6010D		MLR	B1H0147

Sample Number 1080231-03
Sample Description AF09065 WAP-14 collected on 07/19/21 14:22

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**8600**	75	ug/L	5.00	08/10/21 14:56	EPA 6010D		MLR	B1H0147
Lithium	ND	10	ug/L	1.00	08/10/21 16:17	EPA 6010D		MLR	B1H0147

Sample Number 1080231-04
Sample Description AF09066 WAP-14 DUP collected on 07/19/21 14:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**8700**	75	ug/L	5.00	08/10/21 14:59	EPA 6010D		MLR	B1H0147
Lithium	ND	10	ug/L	1.00	08/10/21 16:32	EPA 6010D		MLR	B1H0147

Sample Number 1080231-05
Sample Description AF09067 WAP-14A collected on 07/19/21 13:46

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**40**	10	ug/L	1.00	08/10/21 18:40	EPA 6010D	S1	MLR	B1H0482

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080231
Moncks Corner, SC 29461		Reported:	08/19/21 22:26

Sample Number 1080231-06
Sample Description AF09069 WAP-14C collected on 07/19/21 15:39

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**13**	10	ug/L	1.00	08/10/21 15:24	EPA 6010D		MLR	B1H0147

Sample Number 1080231-07
Sample Description AF09068 WAP-14B collected on 07/19/21 16:34

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**15**	10	ug/L	1.00	08/10/21 15:28	EPA 6010D		MLR	B1H0147

Sample Number 1080231-08
Sample Description AF09050 WAP-1 collected on 07/20/21 12:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/09/21 11:58	EPA 7470A		NAR	B1H0392
Boron	**26**	15	ug/L	1.00	08/13/21 00:00	EPA 6010D		MLR	B1H0147
Lithium	ND	10	ug/L	1.00	08/10/21 15:31	EPA 6010D		MLR	B1H0147
Molybdenum	ND	10	ug/L	1.00	08/10/21 15:31	EPA 6010D		MLR	B1H0147

Sample Number 1080231-09
Sample Description AF09051 WAP-2 collected on 07/20/21 13:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**8300**	75	ug/L	5.00	08/10/21 14:21	EPA 6010D		MLR	B1H0147

Sample Number 1080231-10
Sample Description AF09083 WBW-1 collected on 07/20/21 11:07

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/09/21 12:09	EPA 7470A		NAR	B1H0392
Boron	ND	15	ug/L	1.00	08/13/21 00:00	EPA 6010D		MLR	B1H0147
Lithium	ND	10	ug/L	1.00	08/10/21 15:49	EPA 6010D		MLR	B1H0147
Molybdenum	ND	10	ug/L	1.00	08/10/21 15:49	EPA 6010D		MLR	B1H0147

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080231
Moncks Corner, SC 29461		Reported:	08/19/21 22:26

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0147 - EPA 3005A										
Blank (B1H0147-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1H0147-BS1)										
Boron	500	15	ug/L	500		99	80-120			
Lithium	519	10	ug/L	500		104	80-120			
Molybdenum	490	10	ug/L	500		99	80-120			
Matrix Spike (B1H0147-MS1)	**Source: 1080231-05RE1**									
Boron	7200	75	ug/L	500	6500	142	75-125			S5
Lithium	637	50	ug/L	500	ND	120	75-125			
Molybdenum	520	50	ug/L	500	ND	105	75-125			
Matrix Spike Dup (B1H0147-MSD1)	**Source: 1080231-05RE1**									
Boron	7300	75	ug/L	500	6500	145	75-125	0.2	20	S5
Lithium	634	50	ug/L	500	ND	120	75-125	0.5	20	
Molybdenum	520	50	ug/L	500	ND	104	75-125	0.5	20	
Post Spike (B1H0147-PS1)	**Source: 1080231-05RE1**									
Boron	9100	75	ug/L	2500	6500	102	75-125			
Lithium	2890	50	ug/L	2500	ND	114	75-125			
Molybdenum	2600	50	ug/L	2500	ND	104	75-125			
Batch B1H0392 - EPA 7470A										
Blank (B1H0392-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1H0392-BS1)										
Mercury	5.1	0.20	ug/L	5.00		102	80-120			
Matrix Spike (B1H0392-MS1)	**Source: 1080231-08**									
Mercury	4.9	0.20	ug/L	5.00	ND	97	75-125			

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080231
Moncks Corner, SC 29461		Reported:	08/19/21 22:26

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0392 - EPA 7470A										
Matrix Spike Dup (B1H0392-MSD1)	**Source: 1080231-08**									
Mercury	4.9	0.20	ug/L	5.00	ND	97	75-125	0.3	20	
Post Spike (B1H0392-PS1)	**Source: 1080231-08**									
Mercury	3.8		ug/L	4.00	ND	95	80-120			
Batch B1H0482 - EPA 3005A										
Blank (B1H0482-BLK1)										
Lithium	ND	10	ug/L							
LCS (B1H0482-BS1)										
Lithium	499	10	ug/L	500		100	80-120			
Matrix Spike (B1H0482-MS1)	**Source: 1080231-05**									
Lithium	715	10	ug/L	500	40	135	75-125			S1
Matrix Spike Dup (B1H0482-MSD1)	**Source: 1080231-05**									
Lithium	717	10	ug/L	500	40	135	75-125	0.4	20	S1
Post Spike (B1H0482-PS1)	**Source: 1080231-05**									
Lithium	0.703		mg/L	0.500	ND	133	75-125			S1

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080231
Moncks Corner, SC 29461		Reported:	08/19/21 22:26

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst
EPA 3005A ICP Digestion				
EPA 3005A	B1H0147	1080231-01	08/04/2021 09:25	CAL
EPA 3005A	B1H0147	1080231-02	08/04/2021 09:25	CAL
EPA 3005A	B1H0147	1080231-03	08/04/2021 09:25	CAL
EPA 3005A	B1H0147	1080231-04	08/04/2021 09:25	CAL
EPA 3005A	B1H0482	1080231-05	08/10/2021 13:03	MTH
EPA 3005A	B1H0147	1080231-06	08/04/2021 09:25	CAL
EPA 3005A	B1H0147	1080231-07	08/04/2021 09:25	CAL
EPA 3005A	B1H0147	1080231-08	08/04/2021 09:25	CAL
EPA 3005A	B1H0147	1080231-09	08/04/2021 09:25	CAL
EPA 3005A	B1H0147	1080231-10	08/04/2021 09:25	CAL
EPA 7470A Mercury Digestion				
EPA 7470A	B1H0392	1080231-08	08/09/2021 09:14	NAR
EPA 7470A	B1H0392	1080231-10	08/09/2021 09:14	NAR

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080231
Moncks Corner, SC 29461		Reported:	08/19/21 22:26

Data Qualifiers and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported
RPD	Relative Percent Difference
S1	The matrix spike and / or the matrix spike duplicate sample recovery was not within control limits due to matrix interference. The Laboratory Control Sample (LCS) was within control limits.
S5	The raw sample concentration was greater than four times the spike concentration. The spike recovery was not evaluated against the control limits.

Contract Lab Info: R/C Contract Lab Due Date (Lab Only): 8 / 10 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

1080231

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.601 / 36500

Rerun request for any flagged QC Yes No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	J	Mo	Hg
AF09053	WAP-4	7/19/21	1124	BRT/CWS	1	P	G	GW	2		X	X		
AF09070	WAP-15	"	1030	"	1	"	"	"	"		X	X		
AF09065	WAP-14	"	1422	"	1	"	"	"	"		X	X		
AF09066	WAP-14 DUP	"	1427	"	1	"	"	"	"		X	X		
AF09067	WAP-14A	"	1846	"	1	"	"	"	"			X		
AF09069	WAP-14C	"	1539	"	1	"	"	"	"			X		
AF09068	WAP-14B	"	1634	"	1	"	"	"	"			X		
AF09050	WAP-1	7/20/21	1228	MDG/BRT	1	"	"	"	"		X	X	X	X
AF09051	WAP-2	7/20/21	1328	"	1	"	"	"	"		X			
AF09083	WBW-1	7/20/21	1107	"	1	"	"	"	"		X	X	X	X

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
[signature]	85594	8/2/21	1530	FedEX			
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
FedEX		8.3.21	0915	[signature]		8.3.21	0915
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 24.4 Initial: ___
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(all below)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
☐ Trans. Oil Qual.
☐ %Moisture
☐ Color
☐ Acidity
☐ Dielectric Strength
☐ IFT
☐ Dissolved Gases
☐ Used Oil
☐ Flashpoint
☐ Metals scan (As,Cd,Cr,Ni,Pb Hg)
☐ TN
☐ GOFER

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Rogers & Callcott ENVIRONMENTAL

Sample Receipt Verification

Client: Santee Cooper | Date Received: 08/03/2021 | Work Order: 1080231

Carrier Name: (Client) FedEx UPS US Mail Courier Field Services Other: _____

Tracking Number: _____

Receipt Criteria	Yes	No	NA	Comments
Shipping container / cooler intact?	X			Damaged Leaking Other:
Custody seals intact?			X	
COC included with samples?	X			
COC signed when relinquished and received?	X			
Sample bottles intact?	X			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?	X			
Date / time on COC agree with label on bottle(s)?	X			
Number of bottles on COC agrees with number of bottles received?	X			
Samples received within holding time?	X			
Sample volume sufficient for analysis?	X			
VOA vials free of headspace (<6mm bubble)?			X	
Samples cooled? Temp at receipt recorded on COC; Temp measured with IR thermometer - SN: 97050067	X			(Ice) Cold Packs Dry Ice None
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in the lab. Note: Samples for O&G and VOA analysis – preservation checked at bench.	X			
Samples dechlorinated for parameters requiring chlorine removal at the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA, and HAA analysis.			X	

If in-house preservation used – record Lot #			
HCL		H_3PO_4	
H_2SO_4		NaOH	
HNO_3		Other	

Comments:

Were non-conformance issues noted at sample receipt? Yes or (No)

Non-Conformance issue other than noted above:

Completed by: CSG

Rogers & Callcott ENVIRONMENTAL

Laboratory Services

Laboratory Report

Client	Santee Cooper Linda Williams 1 Riverwood Dr. Moncks Corner, SC 29461	**Project:** **Work Order:** **Received:**	Ground Water 1080871 08/13/2021 09:25

Dear Client:

Rogers and Callcott appreciates the opportunity to be of service to you. The attached laboratory services report includes analytical results and chain of custody for samples that were received on August 13, 2021. Rogers and Callcott maintains a formal QA/QC program. Unless otherwise noted, all analyses performed under NELAP certification have complied with all the requirements for the TNI standard. The analyses met the QA/QC confidence interval for each test method unless otherwise qualified. Estimated uncertainty is available upon request.

Privileged / Confidential information may be contained in this report and is intended only for the use of the addressee. If you are not the addressee, or the person responsible for delivering to the person addressed, you may not copy or deliver this message to anyone else. If you receive this message by mistake, please notify Rogers and Callcott immediately.

We strive to provide excellent service to our clients. Please contact Lauren Hollister, your Project Manager, at lhollister@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Report Approved By:

Lauren Hollister

Lauren Hollister
Project Manager

Rogers & Callcott ENVIRONMENTAL

Certificate of Analysis

South Carolina Greenville Laboratory Identification 23105
South Carolina Columbia Laboratory Identification 40572
North Carolina Laboratory Certification Number 27
North Carolina Drinking Water Lab Number 45710
NELAP Utah Certificate Number SC000042014-1
Georgia Drinking Water Lab ID 880

Client Santee Cooper
Linda Williams
1 Riverwood Dr.
Moncks Corner, SC 29461

Project: Ground Water
Work Order: 1080871
Received: 08/13/2021 09:25

Sample Number	Sample Description	Matrix	Sampled	Type
1080871-01	AF09085 WLF-A1-1	Ground Water	08/05/21 12:46	Grab
1080871-02	AF09056 WAP-7	Ground Water	08/10/21 15:00	Grab
1080871-03	AF09076 WAP-20	Ground Water	08/10/21 15:36	Grab
1080871-04	AF09081 WAP-25	Ground Water	08/10/21 13:32	Grab
1080871-05	AF09082 WAP-26	Ground Water	08/10/21 11:46	Grab
1080871-06	AF09086 WLF-A1-2	Ground Water	08/11/21 13:35	Grab
1080871-07	AF09087 WLF-A1-3	Ground Water	08/11/21 12:05	Grab
1080871-08	AF09088 WLF-A1-4	Ground Water	08/11/21 11:07	Grab
1080871-09	AF09089 WLF-A1-4 DUP	Ground Water	08/11/21 11:12	Grab
1080871-10	AF09052 WAP-3	Ground Water	07/29/21 12:35	Grab
1080871-11	AF09071 WAP-16	Ground Water	07/29/21 15:38	Grab
1080871-12	AF09064 WAP-13	Ground Water	07/29/21 11:29	Grab
1080871-13	AF09062 WAP-12	Ground Water	07/29/21 13:54	Grab
1080871-14	AF09063 WAP-12 DUP	Ground Water	07/29/21 13:59	Grab
1080871-15	AF09080 WAP-24	Ground Water	08/02/21 12:50	Grab
1080871-16	AF09059 WAP-10	Ground Water	08/02/21 11:34	Grab
1080871-17	AF09060 WAP-10 DUP	Ground Water	08/02/21 11:39	Grab
1080871-18	AF09058 WAP-9	Ground Water	08/02/21 13:39	Grab
1080871-19	AF09072 WAP-17	Ground Water	08/02/21 15:12	Grab
1080871-20	AF09073 WAP-17 DUP	Ground Water	08/02/21 15:17	Grab
1080871-21	AF09079 WAP-23	Ground Water	08/03/21 12:36	Grab
1080871-22	AF09077 WAP-21	Ground Water	08/03/21 11:30	Grab
1080871-23	AF09075 WAP-19	Ground Water	08/03/21 16:27	Grab
1080871-24	AF09078 WAP-22	Ground Water	08/04/21 13:31	Grab
1080871-25	AF09091 WLF-A2-6	Ground Water	08/04/21 15:02	Grab
1080871-26	AF09092 WLF-A2-6 DUP	Ground Water	08/04/21 15:07	Grab
1080871-27	AF09074 WAP-18	Ground Water	08/04/21 12:16	Grab

Rogers & Callcott
ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Number	Sample Description	Matrix	Sampled	Type
1080871-28	AF09084 WBW-A1-1	Ground Water	08/05/21 10:30	Grab
1080871-29	AF09090 WLF-A1-5	Ground Water	08/05/21 11:38	Grab

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Data

Sample Number 1080871-01
Sample Description AF09085 WLF-A1-1 collected on 08/05/21 12:46

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 14:50	EPA 7470A		NAR	B1H0833
Boron	**1100**	20	ug/L	1.00	08/17/21 19:18	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 19:18	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:18	EPA 6010D		MLR	B1H0709

Sample Number 1080871-02
Sample Description AF09056 WAP-7 collected on 08/10/21 15:00

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:01	EPA 7470A		NAR	B1H0833
Boron	**970**	20	ug/L	1.00	08/17/21 18:16	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 18:16	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 18:16	EPA 6010D		MLR	B1H0709

Sample Number 1080871-03
Sample Description AF09076 WAP-20 collected on 08/10/21 15:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:18	EPA 7470A		NAR	B1H0833
Boron	**1800**	20	ug/L	1.00	08/17/21 19:22	EPA 6010D		MLR	B1H0709
Lithium	**41**	10	ug/L	1.00	08/17/21 19:22	EPA 6010D		MLR	B1H0709
Molybdenum	**21**	10	ug/L	1.00	08/17/21 19:22	EPA 6010D		MLR	B1H0709

Sample Number 1080871-04
Sample Description AF09081 WAP-25 collected on 08/10/21 13:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	08/17/21 19:26	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:26	EPA 6010D		MLR	B1H0709

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Number 1080871-05
Sample Description AF09082 WAP-26 collected on 08/10/21 11:46

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	08/17/21 19:30	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:30	EPA 6010D		MLR	B1H0709

Sample Number 1080871-06
Sample Description AF09086 WLF-A1-2 collected on 08/11/21 13:35

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:21	EPA 7470A		NAR	B1H0833
Boron	**87**	20	ug/L	1.00	08/17/21 19:53	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 19:53	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:53	EPA 6010D		MLR	B1H0709

Sample Number 1080871-07
Sample Description AF09087 WLF-A1-3 collected on 08/11/21 12:05

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:24	EPA 7470A		NAR	B1H0833
Boron	**70**	20	ug/L	1.00	08/17/21 19:57	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 19:57	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 19:57	EPA 6010D		MLR	B1H0709

Sample Number 1080871-08
Sample Description AF09088 WLF-A1-4 collected on 08/11/21 11:07

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:26	EPA 7470A		NAR	B1H0833
Boron	**170**	20	ug/L	1.00	08/17/21 20:00	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 20:00	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:00	EPA 6010D		MLR	B1H0709

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Number 1080871-09
Sample Description AF09089 WLF-A1-4 DUP collected on 08/11/21 11:12

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:29	EPA 7470A		NAR	B1H0833
Boron	**180**	20	ug/L	1.00	08/17/21 20:04	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 20:04	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:04	EPA 6010D		MLR	B1H0709

Sample Number 1080871-10
Sample Description AF09052 WAP-3 collected on 07/29/21 12:35

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**1700**	20	ug/L	1.00	08/17/21 18:36	EPA 6010D		MLR	B1H0709

Sample Number 1080871-11
Sample Description AF09071 WAP-16 collected on 07/29/21 15:38

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**1500**	20	ug/L	1.00	08/17/21 20:08	EPA 6010D		MLR	B1H0709
Lithium	ND	10	ug/L	1.00	08/17/21 20:08	EPA 6010D		MLR	B1H0709

Sample Number 1080871-12
Sample Description AF09064 WAP-13 collected on 07/29/21 11:29

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**4200**	20	ug/L	1.00	08/17/21 20:12	EPA 6010D		MLR	B1H0709

Sample Number 1080871-13
Sample Description AF09062 WAP-12 collected on 07/29/21 13:54

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**370**	20	ug/L	1.00	08/17/21 20:16	EPA 6010D		MLR	B1H0709

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Number 1080871-14
Sample Description AF09063 WAP-12 DUP collected on 07/29/21 13:59

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**390**	20	ug/L	1.00	08/17/21 20:20	EPA 6010D		MLR	B1H0709

Sample Number 1080871-15
Sample Description AF09080 WAP-24 collected on 08/02/21 12:50

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	08/17/21 20:43	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:43	EPA 6010D		MLR	B1H0709

Sample Number 1080871-16
Sample Description AF09059 WAP-10 collected on 08/02/21 11:34

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**8800**	100	ug/L	5.00	08/17/21 16:56	EPA 6010D		MLR	B1H0709
Lithium	**25**	10	ug/L	1.00	08/17/21 20:47	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:47	EPA 6010D		MLR	B1H0709

Sample Number 1080871-17
Sample Description AF09060 WAP-10 DUP collected on 08/02/21 11:39

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**8700**	100	ug/L	5.00	08/17/21 16:59	EPA 6010D		MLR	B1H0709
Lithium	**25**	10	ug/L	1.00	08/17/21 20:51	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:51	EPA 6010D		MLR	B1H0709

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Number 1080871-18
Sample Description AF09058 WAP-9 collected on 08/02/21 13:39

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**4600**	20	ug/L	1.00	08/17/21 20:54	EPA 6010D		MLR	B1H0709
Lithium	**57**	10	ug/L	1.00	08/17/21 20:54	EPA 6010D		MLR	B1H0709
Molybdenum	ND	10	ug/L	1.00	08/17/21 20:54	EPA 6010D		MLR	B1H0709

Sample Number 1080871-19
Sample Description AF09072 WAP-17 collected on 08/02/21 15:12

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**4100**	20	ug/L	1.00	08/17/21 20:58	EPA 6010D		MLR	B1H0709
Lithium	**12**	10	ug/L	1.00	08/17/21 20:58	EPA 6010D		MLR	B1H0709
Molybdenum	**12**	10	ug/L	1.00	08/17/21 20:58	EPA 6010D		MLR	B1H0709

Sample Number 1080871-20
Sample Description AF09073 WAP-17 DUP collected on 08/02/21 15:17

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**3900**	20	ug/L	1.00	08/17/21 21:02	EPA 6010D		MLR	B1H0709
Lithium	**11**	10	ug/L	1.00	08/17/21 21:02	EPA 6010D		MLR	B1H0709
Molybdenum	**14**	10	ug/L	1.00	08/17/21 21:02	EPA 6010D		MLR	B1H0709

Sample Number 1080871-21
Sample Description AF09079 WAP-23 collected on 08/03/21 12:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**12**	10	ug/L	1.00	08/17/21 21:06	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/17/21 21:06	EPA 6010D		MLR	B1H0734

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Number 1080871-22
Sample Description AF09077 WAP-21 collected on 08/03/21 11:30

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**2200**	20	ug/L	1.00	08/17/21 21:10	EPA 6010D		MLR	B1H0734
Lithium	ND	10	ug/L	1.00	08/17/21 21:10	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/17/21 21:10	EPA 6010D		MLR	B1H0734

Sample Number 1080871-23
Sample Description AF09075 WAP-19 collected on 08/03/21 16:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**4000**	20	ug/L	1.00	08/19/21 16:09	EPA 6010D		MLR	B1H0734
Lithium	**240**	10	ug/L	1.00	08/19/21 16:09	EPA 6010D		MLR	B1H0734
Molybdenum	**24**	10	ug/L	1.00	08/19/21 16:09	EPA 6010D		MLR	B1H0734

Sample Number 1080871-24
Sample Description AF09078 WAP-22 collected on 08/04/21 13:31

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	**67**	10	ug/L	1.00	08/17/21 18:55	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/17/21 18:55	EPA 6010D		MLR	B1H0734

Sample Number 1080871-25
Sample Description AF09091 WLF-A2-6 collected on 08/04/21 15:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:32	EPA 7470A		NAR	B1H0833
Boron	**410**	20	ug/L	1.00	08/19/21 15:57	EPA 6010D		MLR	B1H0734
Lithium	**41**	10	ug/L	1.00	08/19/21 15:57	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 15:57	EPA 6010D		MLR	B1H0734

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Number 1080871-26
Sample Description AF09092 WLF-A2-6 DUP collected on 08/04/21 15:07

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:35	EPA 7470A		NAR	B1H0833
Boron	**410**	20	ug/L	1.00	08/19/21 16:01	EPA 6010D		MLR	B1H0734
Lithium	**39**	10	ug/L	1.00	08/19/21 16:01	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 16:01	EPA 6010D		MLR	B1H0734

Sample Number 1080871-27
Sample Description AF09074 WAP-18 collected on 08/04/21 12:16

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Boron	**3500**	20	ug/L	1.00	08/19/21 16:13	EPA 6010D		MLR	B1H0734
Lithium	**500**	10	ug/L	1.00	08/19/21 16:13	EPA 6010D		MLR	B1H0734
Molybdenum	**90**	10	ug/L	1.00	08/19/21 16:13	EPA 6010D		MLR	B1H0734

Sample Number 1080871-28
Sample Description AF09084 WBW-A1-1 collected on 08/05/21 10:30

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:38	EPA 7470A		NAR	B1H0833
Boron	**42**	20	ug/L	1.00	08/19/21 16:05	EPA 6010D		MLR	B1H0734
Lithium	ND	10	ug/L	1.00	08/19/21 16:05	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 16:05	EPA 6010D		MLR	B1H0734

Sample Number 1080871-29
Sample Description AF09090 WLF-A1-5 collected on 08/05/21 11:38

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	08/18/21 15:41	EPA 7470A		NAR	B1H0833
Boron	**2200**	20	ug/L	1.00	08/19/21 16:17	EPA 6010D		MLR	B1H0734
Lithium	ND	10	ug/L	1.00	08/19/21 16:17	EPA 6010D		MLR	B1H0734
Molybdenum	ND	10	ug/L	1.00	08/19/21 16:17	EPA 6010D		MLR	B1H0734

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0709 - EPA 3005A										
Blank (B1H0709-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1H0709-BS1)										
Boron	490	15	ug/L	500		98	80-120			
Lithium	516	10	ug/L	500		103	80-120			
Molybdenum	470	10	ug/L	500		93	80-120			
Matrix Spike (B1H0709-MS1)	**Source: 1080871-02**									
Boron	1400	15	ug/L	500	970	84	75-125			
Lithium	484	10	ug/L	500	ND	97	75-125			
Molybdenum	500	10	ug/L	500	ND	100	75-125			
Matrix Spike (B1H0709-MS2)	**Source: 1080871-10**									
Boron	2200	15	ug/L	500	1700	100	75-125			
Lithium	547	10	ug/L	500	11	107	75-125			
Molybdenum	460	10	ug/L	500	ND	92	75-125			
Matrix Spike Dup (B1H0709-MSD1)	**Source: 1080871-02**									
Boron	1500	15	ug/L	500	970	102	75-125	6	20	
Lithium	512	10	ug/L	500	ND	102	75-125	6	20	
Molybdenum	460	10	ug/L	500	ND	91	75-125	10	20	
Matrix Spike Dup (B1H0709-MSD2)	**Source: 1080871-10**									
Boron	2200	15	ug/L	500	1700	112	75-125	3	20	
Lithium	547	10	ug/L	500	11	107	75-125	0.03	20	
Molybdenum	460	10	ug/L	500	ND	92	75-125	0.003	20	
Post Spike (B1H0709-PS1)	**Source: 1080871-02**									
Boron	1.5		mg/L	0.500	ND	99	75-125			
Lithium	0.515		mg/L	0.500	ND	103	75-125			
Molybdenum	0.48		mg/L	0.500	ND	95	75-125			

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0709 - EPA 3005A										
Post Spike (B1H0709-PS2)	**Source: 1080871-10**									
Boron	2.1		mg/L	0.500	ND	97	75-125			
Lithium	0.552		mg/L	0.500	ND	108	75-125			
Molybdenum	0.47		mg/L	0.500	ND	94	75-125			
Batch B1H0734 - EPA 3005A										
Blank (B1H0734-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1H0734-BS1)										
Boron	510	15	ug/L	500		101	80-120			
Lithium	519	10	ug/L	500		104	80-120			
Molybdenum	490	10	ug/L	500		97	80-120			
Matrix Spike (B1H0734-MS1)	**Source: 1080871-24**									
Boron	4500	15	ug/L	500	4000	94	75-125			
Lithium	615	10	ug/L	500	67	110	75-125			
Molybdenum	460	10	ug/L	500	ND	91	75-125			
Matrix Spike Dup (B1H0734-MSD1)	**Source: 1080871-24**									
Boron	4700	15	ug/L	500	4000	139	75-125	5	20	S5
Lithium	640	10	ug/L	500	67	114	75-125	4	20	
Molybdenum	470	10	ug/L	500	ND	94	75-125	3	20	
Post Spike (B1H0734-PS1)	**Source: 1080871-24**									
Boron	4.6		mg/L	0.500	ND	109	75-125			
Lithium	0.629		mg/L	0.500	ND	112	75-125			
Molybdenum	0.48		mg/L	0.500	ND	96	75-125			
Batch B1H0833 - EPA 7470A										
Blank (B1H0833-BLK1)										
Mercury	ND	0.20	ug/L							

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Total Metals
Quality Control Summary

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1H0833 - EPA 7470A										
LCS (B1H0833-BS1)										
Mercury	5.0	0.20	ug/L	5.00		99	80-120			
Matrix Spike (B1H0833-MS1)	**Source: 1080871-01**									
Mercury	4.2	0.20	ug/L	5.00	ND	83	75-125			
Matrix Spike (B1H0833-MS2)	**Source: 1080871-02**									
Mercury	5.0	0.20	ug/L	5.00	ND	101	75-125			
Matrix Spike Dup (B1H0833-MSD1)	**Source: 1080871-01**									
Mercury	4.2	0.20	ug/L	5.00	ND	83	75-125	0.2	20	
Matrix Spike Dup (B1H0833-MSD2)	**Source: 1080871-02**									
Mercury	5.0	0.20	ug/L	5.00	ND	100	75-125	0.9	20	
Post Spike (B1H0833-PS1)	**Source: 1080871-01**									
Mercury	3.2		ug/L	4.00	ND	81	80-120			
Post Spike (B1H0833-PS2)	**Source: 1080871-02**									
Mercury	3.8		ug/L	4.00	ND	95	80-120			

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst
EPA 3005A ICP Digestion				
EPA 3005A	B1H0709	1080871-01	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-02	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-03	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-04	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-05	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-06	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-07	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-08	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-09	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-10	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-11	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-12	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-13	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-14	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-15	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-16	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-17	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-18	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-19	08/16/2021 11:50	MTH
EPA 3005A	B1H0709	1080871-20	08/16/2021 11:50	MTH
EPA 3005A	B1H0734	1080871-21	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-22	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-23	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-24	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-25	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-26	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-27	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-28	08/17/2021 08:40	MTH
EPA 3005A	B1H0734	1080871-29	08/17/2021 08:40	MTH

Rogers & Callcott
ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

EPA 7470A Mercury Digestion

EPA 7470A	B1H0833	1080871-01	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-02	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-03	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-06	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-07	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-08	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-09	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-25	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-26	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-28	08/18/2021 11:33	NAR
EPA 7470A	B1H0833	1080871-29	08/18/2021 11:33	NAR

Rogers & Callcott ENVIRONMENTAL

Santee Cooper		Project:	Ground Water
1 Riverwood Dr.		Work Order:	1080871
Moncks Corner, SC 29461		Reported:	08/27/21 23:29

Data Qualifiers and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported
RPD	Relative Percent Difference
S5	The raw sample concentration was greater than four times the spike concentration. The spike recovery was not evaluated against the control limits.

Contract Lab Info: R/C Contract Lab Due Date (Lab Only): 8 / 25 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

1080871

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC (Yes) No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description 1080871	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix (see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	Li	Mo	Hg
AF09085	WLF-A1-1 -01	8/5/21	1246	BRT/BWM							X	X	X	X
AF09056	WAP-7 -02	8/10/21	1500	MDG/BSB							X	X	X	X
AF09076	WAP-20 -03		1536								X	X	X	X
AF09081	WAP-25 -04		1332									X	X	
AF09082	WAP-26 -05		1146									X	X	
AF09086	WLF-A1-2 -06	8/11/21	1335	MDG/CWS							X	X	X	X
AF09087	WLF-A1-3 -07		1205								X	X	X	X
AF09088	WLF-A1-4 -08		1107								X	X	X	X
AF09089	WLF-A1-4 DUP -09		1112								X	X	X	X

MM 8/13/21

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	8/12/21	1500	FedEx			
FedEx				[signature]		8/13/21	0925

Sample Receiving (Internal Use Only)
TEMP (°C): 2.4 Initial: MM
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients: ☐ TOC ☐ DOC ☐ TP/TPO4 ☐ NH3-N ☐ F ☐ Cl ☐ NO2 ☐ Br ☐ NO3 ☐ SO4

MISC.: ☐ BTEX ☐ Napthalene ☐ THM/HAA ☐ VOC ☐ Oil & Grease ☐ E. Coli ☐ Total Coliform ☐ pH ☐ Dissolved As ☐ Dissolved Fe ☐ Rad 226 ☐ Rad 228 ☐ PCB

Gypsum: Wallboard Gypsum (all below) ☐ AIM ☐ TOC ☐ Total metals ☐ Soluble Metals ☐ Purity (CaSO4) ☐ % Moisture ☐ Sulfites ☐ pH ☐ Chlorides ☐ Particle Size ☐ Sulfur

Coal: ☐ Ultimate ☐ % Moisture ☐ Ash ☐ Sulfur ☐ BTUs ☐ Volatile Matter ☐ CHN; Other Tests: ☐ XRF Scan ☐ HGI ☐ Fineness ☐ Particulate Matter

Flyash: ☐ Ammonia ☐ LOI ☐ % Carbon ☐ Mineral Analysis ☐ Sieve ☐ % Moisture

NPDES: ☐ Oil & Grease ☐ As ☐ TSS

Oil: Trans. Oil Qual. % Moisture Color Acidity Dielectric Str. IFT Dissolved Gas; Used Oil: Flashpoint Metals Lead (As, Cd, Cr, Ni, Pb, Hg) PCB COFER

FedEX 8153 6791 5397 ~~0215~~ MM 8/13/21

1 of 3

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Contract Lab Info: R/C *Contract Lab Due Date (Lab Only):* 8 / 25 / 21 *Send report to* lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

1080871 cont

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC (Yes) No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description 1080871	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	Li	Mo	Hg
AF09052	WAP-3 -10	7/29/21	1235	MDG/BRT	1	P	G	GW	2		X			
AF09071	WAP-16 -11	⊥	1538	⊥	|	|	|	|	|		X	X		
AF09064	WAP-13 -12	⊥	1129	⊥	|	|	|	|	|		X			
AF09062	WAP-12 -13	|	1354	|	|	|	|	|	|		X			
AF09063	WAP-12 DUP -14	⊥	1359	⊥	|	|	|	|	|		X			
AF09080	WAP-24 -15	8/2/21	1250	MDG/BRT	|	|	|	|	|			X	X	
AF09059	WAP-10 -16	|	1134	|	|	|	|	|	|		X	X	X	
AF09060	WAP-10 DUP -17	|	1139	|	|	|	|	|	|		X	X	X	
AF09058	WAP-9 -18	⊥	1339	⊥	|	|	|	|	|		X	X	X	
AF09072	WAP-17 -19	⊥	1512	⊥	⊥	⊥	⊥	⊥	⊥		X	X	X	

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	8/12/21	1500	FedEx			
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
FedEx				[signature]		8/13/21	0925
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 2.4 **Initial:** MA
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients: ☐ TOC, ☐ DOC, ☐ TP/TPO4, ☐ NH3-N, ☐ F, ☐ Cl, ☐ NO2, ☐ Br, ☐ NO3, ☐ SO4

MISC.: ☐ BTEX, ☐ Napthalene, ☐ THM/HAA, ☐ VOC, ☐ Oil & Grease, ☐ E. Coli, ☐ Total Coliform, ☐ pH, ☐ Dissolved As, ☐ Dissolved Fe, ☐ Rad 226, ☐ Rad 228, ☐ PCB

Gypsum: ☐ Wallboard Gypsum(*all below*): ☐ AIM, ☐ TOC, ☐ Total metals, ☐ Soluble Metals, ☐ Purity (CaSO4), ☐ % Moisture, ☐ Sulfites, ☐ pH, ☐ Chlorides, ☐ Particle Size, ☐ Sulfur

Coal: ☐ Ultimate, ☐ % Moisture, ☐ Ash, ☐ Sulfur, ☐ BTUs, ☐ Volatile Matter, ☐ CHN; **Other Tests:** ☐ XRF Scan, ☐ HGI, ☐ Fineness, ☐ Particulate Matter

Flyash: ☐ Ammonia, ☐ LOI, ☐ % Carbon, ☐ Mineral Analysis, ☐ Sieve, ☐ % Moisture

NPDES: ☐ Oil & Grease, ☐ As, ☐ TSS

Oil: Trans. Oil Qual., %Moisture, Color, Acidity, Dielectric, IFT, Dissolved Gas; Used Oil: Flashpoint, Metals, (As, Cd, Cr, Ni, Pb, Hg), TX, COLLR

8/13/21 MA
~~3 of 3~~ 2 of 3

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Contract Lab Info: R/C *Contract Lab Due Date (Lab Only):* 8 / 25 / 21 *Send report to* lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

1080871 cont

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC (Yes) No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix (see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	B	Li	Mo	Hg
AF09073	WAP-17 DUP -20	8/2/21	MDG/BRT	1517	1	P	G	GW	2		X	X	X	
AF09079	WAP-23 -21	8/3/21	1236	BRT/CWS								X	X	
AF09077	WAP-21 -22		1130								X	X	X	
AF09075	WAP-19 -23		1627								X	X	X	
AF09078	WAP-22 -24	8/4/21	1331	MDG/BRT								X	X	
AF09091	WLF-A2-6 -25		1502								X	X	X	X
AF09092	WLF-A2-6 DUP -26		1507								X	X	X	X
AF09074	WAP-18 -27		1216								X	X	X	
AF09084	WBW-A1-1 -28	8/5/21	1030	BRT/BWM							X	X	X	X
AF09090	WLF-A1-5 -29		1138								X	X	X	X

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	8/12/21	1500	FedEx			
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
FedEx				[signature]		8/13/21	0925
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 22.4 Initial: MP
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum (all below)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
Trans. Oil Qual.
Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
Used Oil
Flashpoint
Metals
(As, Cd, Cr, Ni, Pb)
Hg
TX
COFLR

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Rogers & Callcott ENVIRONMENTAL

Sample Receipt Verification

Client: Santee Cooper | Date Received: 08/13/2021 | Work Order: 1080871

Carrier Name: Client (FedEx) UPS US Mail Courier Field Services Other: _____

Tracking Number: _____

Receipt Criteria	Yes	No	NA	Comments
Shipping container / cooler intact?	X			Damaged Leaking Other:
Custody seals intact?			X	
COC included with samples?	X			
COC signed when relinquished and received?	X			
Sample bottles intact?	X			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?	X			
Date / time on COC agree with label on bottle(s)?	X			
Number of bottles on COC agrees with number of bottles received?	X			
Samples received within holding time?	X			
Sample volume sufficient for analysis?	X			
VOA vials free of headspace (<6mm bubble)?			X	
Samples cooled? Temp at receipt recorded on COC; Temp measured with IR thermometer - SN: 97050067	X			Ice Cold Packs Dry Ice (None)
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt in the lab. Note: Samples for O&G and VOA analysis – preservation checked at bench.	X			
Samples dechlorinated for parameters requiring chlorine removal at the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA, and HAA analysis.			X	

If in-house preservation used – record Lot #			
HCL		H_3PO_4	
H_2SO_4		NaOH	
HNO_3		Other	

Comments:

Were non-conformance issues noted at sample receipt? Yes or (No)

Non-Conformance issue other than noted above:

Completed by: MAW

GEL Laboratories LLC
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

March 19, 2021

Ms. Jeanette Gilmetti
Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina 29461

Re: ABS Lab Analytical
Work Order: 535320

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 19, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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. 4289.

Sincerely,

Julie Robinson

Julie Robinson
Project Manager

Purchase Order: 367074
Enclosures

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

Certificate of Analysis Report
for

SOOP001 Santee Cooper

Client SDG: 535320 GEL Work Order: 535320

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, Julie Robinson.

Reviewed by Julie Robinson

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96403
Sample ID:	535320001
Matrix:	Ground Water
Collect Date:	16-FEB-21 11:33
Receive Date:	19-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.24	+/-1.16	1.91	3.00	pCi/L			LXB3	03/03/21	0619	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.54	+/-1.21			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.298	+/-0.323	0.523	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			81.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AE96404	Project:	SOOP00119
Sample ID:	535320002	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	16-FEB-21 14:25		
Receive Date:	19-FEB-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.83	+/-1.32	2.10	3.00	pCi/L			LXB3	03/03/21	0619	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.18	+/-1.37			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.355	+/-0.371	0.604	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AE96405	Project:	SOOP00119
Sample ID:	535320003	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	16-FEB-21 15:30		
Receive Date:	19-FEB-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.550	+/-0.938	1.64	3.00	pCi/L			LXB3	03/03/21	0619	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		0.877	+/-1.00			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.327	+/-0.358	0.588	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			83.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AE96379	Project:	SOOP00119
Sample ID:	535320004	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	15-FEB-21 13:37		
Receive Date:	19-FEB-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.34	+/-1.01	1.58	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.76	+/-1.06			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.422	+/-0.332	0.450	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AE96380	Project:	SOOP00119
Sample ID:	535320005	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	15-FEB-21 14:40		
Receive Date:	19-FEB-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		3.43	+/-1.39	1.92	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		8.50	+/-1.77			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		5.07	+/-1.09	0.817	1.00	pCi/L			MXH8	03/12/21	0841	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AE96412	Project:	SOOP00119
Sample ID:	535320006	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	15-FEB-21 12:21		
Receive Date:	19-FEB-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.24	+/-0.858	1.30	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.69	+/-0.929			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.453	+/-0.356	0.482	1.00	pCi/L			MXH8	03/12/21	0915	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			84.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96388
Sample ID:	535320007
Matrix:	Ground Water
Collect Date:	17-FEB-21 13:57
Receive Date:	19-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		2.96	+/-1.42	2.12	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		5.83	+/-1.59			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		2.88	+/-0.701	0.492	1.00	pCi/L			MXH8	03/12/21	0915	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			83.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96389
Sample ID:	535320008
Matrix:	Ground Water
Collect Date:	17-FEB-21 14:02
Receive Date:	19-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.53	+/-1.24	1.99	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.16	+/-1.37			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.63	+/-0.584	0.600	1.00	pCi/L			MXH8	03/12/21	0915	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			82.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 19, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96406
Sample ID:	535320009
Matrix:	Ground Water
Collect Date:	17-FEB-21 12:35
Receive Date:	19-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.48	+/-1.05	1.63	3.00	pCi/L			LXB3	03/03/21	0620	2094595	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.13	+/-1.11			pCi/L		1	AEA	03/16/21	0416	2094594	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.646	+/-0.377	0.381	1.00	pCi/L			MXH8	03/12/21	0915	2094556	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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: March 19, 2021

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **535320**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2094595										
QC1204757495 535320004 DUP										
Radium-228	U	1.34	U	0.520	pCi/L	N/A		N/A	LXB3	03/03/21 06:19
	Uncertainty	+/-1.01		+/-0.847						
QC1204757496 LCS										
Radium-228	54.7			61.6	pCi/L		113	(75%-125%)		03/03/21 06:19
	Uncertainty			+/-3.92						
QC1204757494 MB										
Radium-228				1.50	pCi/L					03/03/21 06:19
	Uncertainty			+/-0.829						
Rad Ra-226										
Batch 2094556										
QC1204757382 535320001 DUP										
Radium-226	U	0.298		0.575	pCi/L	63.6		(0% - 100%)	MXH8	03/12/21 09:53
	Uncertainty	+/-0.323		+/-0.378						
QC1204757384 LCS										
Radium-226	27.0			26.8	pCi/L		99.1	(75%-125%)		03/12/21 09:53
	Uncertainty			+/-2.12						
QC1204757381 MB										
Radium-226				0.778	pCi/L					03/12/21 09:52
	Uncertainty			+/-0.479						
QC1204757383 535320001 MS										
Radium-226	27.0 U	0.298		24.9	pCi/L		92.2	(75%-125%)		03/12/21 09:53
	Uncertainty	+/-0.323		+/-2.01						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

QC Summary

Workorder: 535320

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

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

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

Radiochemistry
Technical Case Narrative
Santee Cooper
SDG #: 535320

Product: **GFPC, Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2094595

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

GEL Sample ID#	Client Sample Identification
535320001	AE96403
535320002	AE96404
535320003	AE96405
535320004	AE96379
535320005	AE96380
535320006	AE96412
535320007	AE96388
535320008	AE96389
535320009	AE96406
1204757494	Method Blank (MB)
1204757495	535320004(AE96379) Sample Duplicate (DUP)
1204757496	Laboratory Control Sample (LCS)

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

Data Summary:

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

Quality Control (QC) Information

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

Sample	Analyte	Value
1204757494 (MB)	Radium-228	Result: 1.50 pCi/L > MDA: 1.14 pCi/L <= RDL: 3.00 pCi/L

Product: **Lucas Cell, Ra226, Liquid**
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2094556

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

GEL Sample ID#	Client Sample Identification
535320001	AE96403
535320002	AE96404
535320003	AE96405
535320004	AE96379
535320005	AE96380
535320006	AE96412
535320007	AE96388
535320008	AE96389
535320009	AE96406
1204757381	Method Blank (MB)
1204757382	535320001(AE96403) Sample Duplicate (DUP)
1204757383	535320001(AE96403) Matrix Spike (MS)
1204757384	Laboratory Control Sample (LCS)

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

Data Summary:

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

Quality Control (QC) Information

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

Sample	Analyte	Value
1204757381 (MB)	Radium-226	Result: 0.778 pCi/L > MDA: 0.662 pCi/L <= RDL: 1.00 pCi/L

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.

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 3 / 19 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody 535320

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.901 / 36500

Rerun request for any flagged QC Yes No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226	RAD 228	TOTAL RAD CALC
AE96403	WAP-18	2/16/21	1133	MDE/DBW	2	P	G	GW	2		X	X	X
AE96404	WAP-19	"	1425	"	"	"	"	"	"		"	"	"
AE96405	WAP-20	"	1530	"	"	"	"	"	"		"	"	"
AE96379	WAP-1	2/15/21	1337	MDE/DBW	"	"	"	"	"		"	"	"
AE96380	WAP-2	"	1440	"	"	"	"	"	"		"	"	"
AE96412	WBW-1	2/15/21	1221	"	"	"	"	"	"		"	"	"
AE96388	WAP-10	2/17/21	1357	DBW/BSB	2	"	"	"	"		"	"	"
AE96389	WAP-10 DUP	"	1402	"	"	"	"	"	"		"	"	"
AE96406	WAP-21	"	1235	"	"	"	"	"	"		"	"	"

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
[signature]	35594	2/19/21	0845	[signature]	GEL	2/19/21	0954
Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
[signature]	661	2/19/21	1621	[signature]	GEL	2/19/21	11:21
Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time

Sample Receiving (Internal Use Only)
TEMP (°C):_____ Initial:_____
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ **METALS (all)**

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
Trans. Oil Qual.
% Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
Used Oil
Flashpoint
Metals in oil (As,Cd,Cr,Ni,Pb Hg)
TN
GOFER

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

JR

Client: SOOP

SDG/AR/COC/Work Order: 535320

Received By: Tve

Date Received: 2/19/21

Circle Applicable: FedEx Express FedEx Ground UPS Field Services (Courier) Other

Carrier and Tracking Number

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*			✓	Preservation Method: Wet Ice Ice Packs Dry Ice (None) Other: *all temperatures are recorded in Celsius TEMP: 16°C
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR3-19 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials NPG Date 2/22/21 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 19 March 2021

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	SC000122021-1
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	2019-165
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	T104704235-21-19
Utah NELAP	SC000122020-34
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

GEL Laboratories LLC
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

March 26, 2021

Ms. Jeanette Gilmetti
Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina 29461

Re: ABS Lab Analytical
Work Order: 536093

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 26, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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. 4289.

Sincerely,

Julie Robinson

Julie Robinson
Project Manager

Purchase Order: 367074
Enclosures

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

Certificate of Analysis Report
for

SOOP001 Santee Cooper

Client SDG: 536093 GEL Work Order: 536093

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, Julie Robinson.

Reviewed by Julie Robinson

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

Certificate of Analysis

Report Date: March 26. 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96385
Sample ID:	536093001
Matrix:	Ground Water
Collect Date:	24-FEB-21 11:02
Receive Date:	26-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.01	+/-0.828	1.31	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.66	+/-0.938			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.647	+/-0.440	0.621	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 26. 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96381
Sample ID:	536093002
Matrix:	Ground Water
Collect Date:	24-FEB-21 13:18
Receive Date:	26-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	-0.123	+/-0.815	1.57	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.47	+/-0.999			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.47	+/-0.578	0.661	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			90.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: March 26. 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96387
Sample ID:	536093003
Matrix:	Ground Water
Collect Date:	23-FEB-21 12:49
Receive Date:	26-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		2.59	+/-1.57	2.45	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.65	+/-1.63			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.07	+/-0.422	0.364	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			81.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: March 26. 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96382
Sample ID:	536093004
Matrix:	Ground Water
Collect Date:	23-FEB-21 14:28
Receive Date:	26-FEB-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.524	+/-0.903	1.58	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.97	+/-1.03			pCi/L		1	AEA	03/24/21	1133	2097459	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.45	+/-0.495	0.421	1.00	pCi/L			MXH8	03/04/21	0838	2097342	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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: March 26, 2021

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **536093**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2097455										
QC1204762520 536093004 DUP										
Radium-228	U	0.524	U	0.739	pCi/L	N/A			N/A LXB3	03/23/21 06:46
	Uncertainty	+/-0.903		+/-0.982						
QC1204762521 LCS										
Radium-228	54.3			46.4	pCi/L		85.4	(75%-125%)		03/23/21 06:46
	Uncertainty			+/-3.39						
QC1204762519 MB										
Radium-228			U	1.67	pCi/L					03/23/21 06:46
	Uncertainty			+/-1.34						
Rad Ra-226										
Batch 2097342										
QC1204762172 536093001 DUP										
Radium-226		0.647		0.747	pCi/L	14.4		(0% - 100%)	MXH8	03/04/21 09:12
	Uncertainty	+/-0.440		+/-0.426						
QC1204762176 LCS										
Radium-226	27.0			26.3	pCi/L		97.2	(75%-125%)		03/04/21 09:12
	Uncertainty			+/-2.38						
QC1204762171 MB										
Radium-226			U	0.222	pCi/L					03/04/21 09:12
	Uncertainty			+/-0.399						
QC1204762173 536093001 MS										
Radium-226	135	0.647		138	pCi/L		102	(75%-125%)		03/04/21 09:12
	Uncertainty	+/-0.440		+/-10.3						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

QC Summary

Workorder: 536093

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

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

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

Radiochemistry
Technical Case Narrative
Santee Cooper
SDG #: 536093

Product: **GFPC, Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2097455

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

GEL Sample ID#	Client Sample Identification
536093001	AE96385
536093002	AE96381
536093003	AE96387
536093004	AE96382
1204762519	Method Blank (MB)
1204762520	536093004(AE96382) Sample Duplicate (DUP)
1204762521	Laboratory Control Sample (LCS)

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

Data Summary:

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

Product: **Lucas Cell, Ra226, Liquid**
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2097342

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

GEL Sample ID#	Client Sample Identification
536093001	AE96385
536093002	AE96381
536093003	AE96387
536093004	AE96382
1204762171	Method Blank (MB)
1204762172	536093001(AE96385) Sample Duplicate (DUP)
1204762173	536093001(AE96385) Matrix Spike (MS)
1204762176	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 and matrix spike duplicate, 1204762173 (AE96385MS), aliquots were 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.

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 3 / 28 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

5360093

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC Yes No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226	RAD 228	TOTAL RAD CALC	
AE96385	WAP-7	2/24/21	1102	DEW/ATH	2	P	G	GW	2		X	X	X	
AE96381	WAP-3	1	1318	1	2	1	1	1	1		X	X	X	
AE96387	WAP-9	2/23/21	1249	DEW/MDG	2	1	1	1	1		X	X	X	
AE96382	WAP-4	1	1428	1	2	1	1	1	1		X	X	X	

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	2/26/21	0947		GEL	2/26/21	0947
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
	GEL	2.26.21	1334			2 26 21	1334
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C):_____ Initial:_____
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)		
☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
☐ Trans. Oil Qual.
%Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
☐ Used Oil
Flashpoint
Metals in oil (As,Cd,Cr,Ni,Pb Hg)
TN
GOF/GR

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code 1=4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SOOP	SDG/AR/COC/Work Order: 536093
Received By: STACY BOONE	Date Received: FEBUARY 26 2021
Carrier and Tracking Number	*Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	Nr	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 1 C
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR1-20 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) *Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials NRG Date 3/1/21 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 26 March 2021

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	SC000122021-1
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	2019-165
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	T104704235-21-19
Utah NELAP	SC000122020-34
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

GEL Laboratories LLC
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

April 01, 2021

Ms. Jeanette Gilmetti
Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina 29461

Re: ABS Lab Analytical
Work Order: 536991

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 05, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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. 4289.

Sincerely,

Julie Robinson

Julie Robinson
Project Manager

Purchase Order: 367074
Enclosures

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

Certificate of Analysis Report
for

SOOP001 Santee Cooper

Client SDG: 536991 GEL Work Order: 536991

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, Julie Robinson.

Reviewed by Julie Robinson

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

Certificate of Analysis

Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96394
Sample ID:	536991001
Matrix:	Ground Water
Collect Date:	25-FEB-21 11:10
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.40	+/-1.44	2.40	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.38	+/-1.47			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.982	+/-0.297	0.247	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			77.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96395
Sample ID:	536991002
Matrix:	Ground Water
Collect Date:	25-FEB-21 11:15
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		2.32	+/-1.30	1.98	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.58	+/-1.34			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.25	+/-0.336	0.211	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96399
Sample ID:	536991003
Matrix:	Ground Water
Collect Date:	25-FEB-21 15:40
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		2.01	+/-1.14	1.70	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		4.35	+/-1.24			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		2.34	+/-0.480	0.330	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96393
Sample ID:	536991004
Matrix:	Ground Water
Collect Date:	04-MAR-21 11:55
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		1.96	+/-0.969	1.35	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.36	+/-1.03			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.40	+/-0.352	0.170	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96391
Sample ID:	536991005
Matrix:	Ground Water
Collect Date:	04-MAR-21 13:09
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.53	+/-1.10	1.74	3.00	pCi/L			LXB3	03/23/21	0645	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.18	+/-1.17			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.65	+/-0.380	0.170	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96392
Sample ID:	536991006
Matrix:	Ground Water
Collect Date:	04-MAR-21 13:14
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		3.31	+/-1.12	1.34	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		4.72	+/-1.18			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.42	+/-0.355	0.234	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			84.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96400
Sample ID:	536991007
Matrix:	Ground Water
Collect Date:	04-MAR-21 14:27
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.524	+/-0.852	1.49	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.01	+/-0.937			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.49	+/-0.390	0.197	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			84.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96414
Sample ID:	536991008
Matrix:	Ground Water
Collect Date:	02-MAR-21 12:53
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.48	+/-1.33	2.18	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.10	+/-1.35			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.624	+/-0.254	0.191	1.00	pCi/L			MXH8	04/01/21	0909	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			86.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96419
Sample ID:	536991009
Matrix:	Ground Water
Collect Date:	02-MAR-21 14:01
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.552	+/-1.19	2.08	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.52	+/-1.22			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.970	+/-0.283	0.158	1.00	pCi/L			MXH8	04/01/21	1211	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			83.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96401
Sample ID:	536991010
Matrix:	Ground Water
Collect Date:	02-MAR-21 10:48
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.141	+/-0.941	1.73	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		0.390	+/-0.955			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.250	+/-0.160	0.174	1.00	pCi/L			MXH8	04/01/21	0945	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96402
Sample ID:	536991011
Matrix:	Ground Water
Collect Date:	02-MAR-21 10:53
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.794	+/-0.929	1.56	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.10	+/-0.947			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.308	+/-0.183	0.210	1.00	pCi/L			MXH8	04/01/21	0945	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96413
Sample ID:	536991012
Matrix:	Ground Water
Collect Date:	01-MAR-21 10:05
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.271	+/-0.926	1.67	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.24	+/-0.972			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.972	+/-0.297	0.173	1.00	pCi/L			MXH8	04/01/21	0945	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96417
Sample ID:	536991013
Matrix:	Ground Water
Collect Date:	01-MAR-21 11:10
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	-0.953	+/-0.818	1.75	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		0.139	+/-0.830			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.139	+/-0.140	0.220	1.00	pCi/L			MXH8	04/01/21	0945	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96418
Sample ID:	536991014
Matrix:	Ground Water
Collect Date:	01-MAR-21 11:15
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.63	+/-1.60	2.65	3.00	pCi/L			LXB3	03/23/21	0802	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.15	+/-1.61			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.518	+/-0.221	0.172	1.00	pCi/L			MXH8	04/01/21	0945	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			87.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96416
Sample ID:	536991015
Matrix:	Ground Water
Collect Date:	01-MAR-21 12:31
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.271	+/-1.13	2.03	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		0.965	+/-1.16			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.694	+/-0.264	0.222	1.00	pCi/L			MXH8	04/01/21	0945	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			90.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: April 1, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AE96415
Sample ID:	536991016
Matrix:	Ground Water
Collect Date:	01-MAR-21 13:48
Receive Date:	05-MAR-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.32	+/-0.912	1.40	3.00	pCi/L			LXB3	03/23/21	0646	2097455	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.23	+/-0.964			pCi/L		1	GXR1	04/01/21	1330	2102994	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.908	+/-0.311	0.264	1.00	pCi/L			MXH8	04/01/21	0945	2100100	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			83.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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: April 1, 2021

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **536991**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2097455										
QC1204762520 536093004 DUP										
Radium-228	U	0.524	U	0.739	pCi/L	N/A			N/A LXB3	03/23/21 06:46
	Uncertainty	+/-0.903		+/-0.982						
QC1204762521 LCS										
Radium-228	54.3			46.4	pCi/L		85.4	(75%-125%)		03/23/21 06:46
	Uncertainty			+/-3.39						
QC1204762519 MB										
Radium-228			U	1.67	pCi/L					03/23/21 06:46
	Uncertainty			+/-1.34						
Rad Ra-226										
Batch 2100100										
QC1204767958 536991001 DUP										
Radium-226		0.982		1.56	pCi/L	45.6*		(0%-20%)	MXH8	04/01/21 10:33
	Uncertainty	+/-0.297		+/-0.385						
QC1204767960 LCS										
Radium-226	27.0			22.3	pCi/L		82.4	(75%-125%)		04/01/21 10:33
	Uncertainty			+/-1.38						
QC1204767957 MB										
Radium-226			U	0.186	pCi/L					04/01/21 10:33
	Uncertainty			+/-0.227						
QC1204767959 536991001 MS										
Radium-226	27.0	0.982		21.3	pCi/L		75	(75%-125%)		04/01/21 10:33
	Uncertainty	+/-0.297		+/-1.36						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

QC Summary

Workorder: 536991

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

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

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

Radiochemistry
Technical Case Narrative
Santee Cooper
SDG #: 536991

Product: **GFPC, Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2097455

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

GEL Sample ID#	Client Sample Identification
536991001	AE96394
536991002	AE96395
536991003	AE96399
536991004	AE96393
536991005	AE96391
536991006	AE96392
536991007	AE96400
536991008	AE96414
536991009	AE96419
536991010	AE96401
536991011	AE96402
536991012	AE96413
536991013	AE96417
536991014	AE96418
536991015	AE96416
536991016	AE96415
1204762519	Method Blank (MB)
1204762520	536093004(AE96382) Sample Duplicate (DUP)
1204762521	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 536991014 (AE96418) was recounted to verify sample results. Recount is reported.

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

Analytical Batch: 2100100

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

GEL Sample ID#	Client Sample Identification
536991001	AE96394
536991002	AE96395
536991003	AE96399
536991004	AE96393
536991005	AE96391
536991006	AE96392
536991007	AE96400
536991008	AE96414
536991009	AE96419
536991010	AE96401
536991011	AE96402
536991012	AE96413
536991013	AE96417
536991014	AE96418
536991015	AE96416
536991016	AE96415
1204767957	Method Blank (MB)
1204767958	536991001(AE96394) Sample Duplicate (DUP)
1204767959	536991001(AE96394) Matrix Spike (MS)
1204767960	Laboratory Control Sample (LCS)

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

Data Summary:

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

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample
The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1204767958 (AE96394DUP)	Radium-226	RPD 45.6* (0.00%-20.00%) RER 1.82 (0-3)

Technical Information

Recounts
Sample 536991009 (AE96419) was recounted to verify sample results. Recount is reported.

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.

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 4 / 2 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

5360991

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC Yes No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226	RAD 228	TOTAL RAD CALC	
AE96394	WAP-14	2/25/21	1110	DEW/MDG	2	P	G	GW	2		X	X	X	
AE96395	WAP-14 DUP	"	1115	"	"	"	"	"	"		"	"	"	
AE96399	WAP-15	"	1540	"	"	"	"	"	"		"	"	"	
AE96393	WAP-13	3/4/21	1155	DEW/ML	"	"	"	"	"		"	"	"	
AE96391	WAP-12	"	1309	"	"	"	"	"	"		"	"	"	
AE96392	WAP-12 DUP	"	1314	"	"	"	"	"	"		"	"	"	
AE96400	WAP-16	"	1427	"	"	"	"	"	"		"	"	"	
AE96414	WLF-A1-1	3/2/21	1253	DEW/TG/DJ	"	"	"	"	"		"	"	"	
AE96419	WLF-A1-5	"	1401	"	"	"	"	"	"		"	"	"	

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	3/5/21	0959		GEL	3/5/21	0959
Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
	GEL	3-5-21	1345	M. Johnson	GEL	3-5-21	1345
Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time

Sample Receiving (Internal Use Only)
TEMP (°C): 20 Initial: MS
Correct pH: (Yes) No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
Trans. Oil Qual
%Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
Used Oil
Flashpoint
Metals in oil
(As, Cd, Cr, Ni, Pb, Fe)
TN
TX
GOF/LR

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative Code: 1-None 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 4 / 2 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC Yes No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226	RAD 228	TOTAL RAD CALC	
AE96401	WAP-17	3/2/21	1048	DEW TG/DJ	2	P	G	GW	2		X	X	X	
AE96402	WAP-17 DUP	〃	1053	〃	〃	〃	〃	〃	〃		〃	〃	〃	
AE96413	WBW-A1-1	3/1/12	1005	DEW ML	〃	〃	〃	〃	〃		〃	〃	〃	
AE96417	WLF-A1-4	〃	1110	〃	〃	〃	〃	〃	〃		〃	〃	〃	
AE96418	WLF-A1-4 DUP	〃	1115	〃	〃	〃	〃	〃	〃		〃	〃	〃	
AE96416	WLF-A1-3	〃	1231	〃	〃	〃	〃	〃	〃		〃	〃	〃	
AE96415	WLF-A1-2	〃	1348	〃	〃	〃	〃	〃	〃		〃	〃	〃	

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
[signature]	35594	3/5/21	0959	[signature]	GEL	3/5/21	0959
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
[signature]	1661	3-5-21	1345	M. Stone	GEL	3-5-21	1345
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C): 20 Initial: MS
Correct pH: (Yes) No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)		
☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard Gypsum(*all below*)
☐ AIM
☐ TOC
☐ Total metals
☐ Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
Trans. Oil Qual.
%Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
Used Oil
Flashpoint
Metals in oil (As,Cd,Cr,Ni,Pb)
HGI
TX
GOF I R

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative Code: 1=NaOH 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SCOP	**SDG/AR/COC/Work Order:** 536991
Received By: MLS	**Date Received:** 3-5-21
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information	**Yes**	**No**	
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*			✓	Preservation Method: Wet Ice Ice Packs Dry ice (None) Other: *all temperatures are recorded in Celsius **TEMP:** 26°C
4	Daily check performed and passed on IR temperature gun?	✓			**Temperature Device Serial #:** IR3-18 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials CD Date 3/8/21 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 01 April 2021

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	SC000122021-1
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	2019-165
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	T104704235-21-19
Utah NELAP	SC000122020-34
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

GEL Laboratories LLC
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

August 26, 2021

Ms. Jeanette Gilmetti
Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina 29461

Re: ABS Lab Analytical
Work Order: 551182

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 30, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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. 4289.

Sincerely,

Julie Robinson

Julie Robinson
Project Manager

Purchase Order: 367074
Enclosures

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

Certificate of Analysis Report
for

SOOP001 Santee Cooper

Client SDG: 551182 GEL Work Order: 551182

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, Julie Robinson.

Reviewed by Julie Robinson

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

Certificate of Analysis

Report Date: August 26, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09053
Sample ID:	551182001
Matrix:	Ground Water
Collect Date:	19-JUL-21 11:24
Receive Date:	30-JUL-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	-1.03	+/-0.843	1.84	3.00	pCi/L			JXC9	08/17/21	0929	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.40	+/-0.962			pCi/L		1	AEA	08/24/21	1422	2157718	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.40	+/-0.463	0.290	1.00	pCi/L			LXP1	08/22/21	0714	2157760	3

The following Analytical Methods were performed:

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

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

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: August 26, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09070
Sample ID:	551182002
Matrix:	Ground Water
Collect Date:	19-JUL-21 10:30
Receive Date:	30-JUL-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	-0.396	+/-0.781	1.60	3.00	pCi/L			JXC9	08/17/21	0930	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		0.983	+/-0.867			pCi/L		1	AEA	08/24/21	1422	2157718	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.983	+/-0.378	0.351	1.00	pCi/L			LXP1	08/22/21	0714	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			82.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: August 26, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09065
Sample ID:	551182003
Matrix:	Ground Water
Collect Date:	19-JUL-21 14:22
Receive Date:	30-JUL-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.453	+/-0.984	1.74	3.00	pCi/L			JXC9	08/17/21	0930	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		1.67	+/-1.08			pCi/L		1	AEA	08/24/21	1422	2157718	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.21	+/-0.439	0.415	1.00	pCi/L			LXP1	08/22/21	0714	2157760	3

The following Analytical Methods were performed:

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

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

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: August 26, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09066
Sample ID:	551182004
Matrix:	Ground Water
Collect Date:	19-JUL-21 14:27
Receive Date:	30-JUL-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	2.67	+/-1.80	2.77	3.00	pCi/L			JXC9	08/17/21	0930	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.81	+/-1.85			pCi/L		1	AEA	08/24/21	1422	2157718	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.15	+/-0.418	0.373	1.00	pCi/L			LXP1	08/22/21	0714	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			44.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: August 26, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AF09050	Project:	SOOP00119
Sample ID:	551182005	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	20-JUL-21 12:28		
Receive Date:	30-JUL-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		3.96	+/-1.44	1.96	3.00	pCi/L			JXC9	08/17/21	0930	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		5.01	+/-1.51			pCi/L		1	AEA	08/24/21	1422	2157718	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.05	+/-0.475	0.559	1.00	pCi/L			LXP1	08/22/21	0714	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: August 26, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AF09051	Project:	SOOP00119
Sample ID:	551182006	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	20-JUL-21 13:28		
Receive Date:	30-JUL-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		2.80	+/-0.988	1.18	3.00	pCi/L			JXC9	08/17/21	0930	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		7.52	+/-1.28			pCi/L		1	AEA	08/24/21	1422	2157718	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		4.72	+/-0.810	0.505	1.00	pCi/L			LXP1	08/22/21	0714	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			90.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: August 26, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09083
Sample ID:	551182007
Matrix:	Ground Water
Collect Date:	20-JUL-21 11:07
Receive Date:	30-JUL-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.0240	+/-1.24	2.26	3.00	pCi/L			JXC9	08/17/21	0929	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		0.626	+/-1.29			pCi/L		1	AEA	08/24/21	1422	2157718	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.602	+/-0.361	0.463	1.00	pCi/L			LXP1	08/22/21	0714	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			83.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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: August 26, 2021

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **551182**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2157720										
QC1204877893 551609004 DUP										
Radium-228	U	1.13	U	0.433	pCi/L	N/A		N/A	JXC9	08/17/21 09:29
	Uncertainty	+/-1.19		+/-0.901						
QC1204877894 LCS										
Radium-228	51.5			45.9	pCi/L		89.2	(75%-125%)		08/17/21 11:13
	Uncertainty			+/-3.67						
QC1204877892 MB										
Radium-228			U	-0.0456	pCi/L					08/17/21 09:28
	Uncertainty			+/-0.829						
Rad Ra-226										
Batch 2157760										
QC1204878006 551182006 DUP										
Radium-226		4.72		5.09	pCi/L	7.59		(0%-20%)	LXP1	08/22/21 07:49
	Uncertainty	+/-0.810		+/-0.873						
QC1204878008 LCS										
Radium-226	27.0			24.8	pCi/L		91.9	(75%-125%)		08/22/21 07:49
	Uncertainty			+/-2.01						
QC1204878005 MB										
Radium-226			U	0.126	pCi/L					08/22/21 07:49
	Uncertainty			+/-0.195						
QC1204878007 551182006 MS										
Radium-226	135	4.72		130	pCi/L		92.8	(75%-125%)		08/22/21 07:49
	Uncertainty	+/-0.810		+/-9.30						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

QC Summary

Workorder: 551182

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

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

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

Radiochemistry
Technical Case Narrative
Santee Cooper
SDG #: 551182

Product: **GFPC, Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2157720

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

GEL Sample ID#	Client Sample Identification
551182001	AF09053
551182002	AF09070
551182003	AF09065
551182004	AF09066
551182005	AF09050
551182006	AF09051
551182007	AF09083
1204877892	Method Blank (MB)
1204877893	551609004(AF09052) Sample Duplicate (DUP)
1204877894	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 1204877894 (LCS) was recounted due to low recovery. 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: 2157760

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

GEL Sample ID#	Client Sample Identification
551182001	AF09053
551182002	AF09070
551182003	AF09065
551182004	AF09066

551182005	AF09050
551182006	AF09051
551182007	AF09083
1204878005	Method Blank (MB)
1204878006	551182006(AF09051) Sample Duplicate (DUP)
1204878007	551182006(AF09051) Matrix Spike (MS)
1204878008	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, 1204878007 (AF09051MS), 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.

Contract Lab Info: GEL Contract Lab Due Date (Lab Only): 8 / 27 / 21 Send report to lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

551182

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient: LCWILLIA @santeecooper.com

Date Results Needed by: ___/___/___

Project/Task/Unit #: 121567 / JM02.09.G01 / 36500

Rerun request for any flagged QC Yes No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226	RAD 228	TOTAL RAD CALC	
AF09053	WAP-4	7/19/21	1124	ERT/CWS	2	P	G	GW	2		X	X	X	
AF09070	WAP-15	7/19/21	1030											
AF09065	WAP-14		1422											
AF09066	WAP-14 DUP		1427											
AF09050	WAP-1	7/20/21	1228	MDG/ERT										
AF09051	WAP-2		1328											
AF09083	WBW-1		1107											

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	7/30/21	1230		GEL	7/30/21	1230
Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
	GEL	7/30/21	1327				

Sample Receiving (Internal Use Only)
TEMP (°C):_____ Initial:_____
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:

☐ METALS (all)

☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
☐ TOC
☐ DOC
☐ TP/TPO4
☐ NH3-N
☐ F
☐ Cl
☐ NO2
☐ Br
☐ NO3
☐ SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
☐ Wallboard
☐ Gypsum(all below)
☐ AIM
☐ DOC
☐ Total metals
Soluble Metals
☐ Purity (CaSO4)
☐ % Moisture
☐ Sulfites
☐ pH
☐ Chlorides
☐ Particle Size
☐ Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
☐ Ammonia
☐ LOI
☐ % Carbon
☐ Mineral Analysis
☐ Sieve
☐ % Moisture

NPDES
☐ Oil & Grease
☐ As
☐ TSS

Oil
Trans. Oil Quali.
% Moisture
Color
Acidity
Dielectric Strength
IFT
Dissolved Gases
Used Oil
Discharge
Metals in oil
(As, Cd, Cr, Ni, Pb)
Flash
TSS
COPPER

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative code- 1=<4°C 2=HNO_3 3=H_2SO_4 4-HCl 5=$Na_2S_2O_3$ 6-Other (Specify)

GEL Laboratories LLC

DS 7/30/21

SAMPLE RECEIPT & REVIEW FORM

Client: BLT SOOP	**SDG/AR/COC/Work Order:** 551182
Received By: DS	**Date Received:** 7-30-2021
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		/	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		/	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		/	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		/	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		/	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	/			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	/			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		/		Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 22.6
4	Daily check performed and passed on IR temperature gun?	/			Temperature Device Serial #: IR5-21 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	/			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	/			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			/	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	/			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	/			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	/			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	/			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	/			
13	COC form is properly signed in relinquished/received sections?	/			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials NRG Date 8/2/21 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 26 August 2021

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	SC000122021-1
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	2019-165
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	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

GEL Laboratories LLC
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

August 30, 2021

Ms. Jeanette Gilmetti
Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina 29461

Re: ABS Lab Analytical
Work Order: 551609

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 03, 2021. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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. 4289.

Sincerely,

Julie Robinson

Julie Robinson
Project Manager

Purchase Order: 367074
Enclosures

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

Certificate of Analysis Report
for

SOOP001 Santee Cooper

Client SDG: 551609 GEL Work Order: 551609

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, Julie Robinson.

Reviewed by Julie Robinson

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

Certificate of Analysis

Report Date: August 30, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09064
Sample ID:	551609001
Matrix:	Ground Water
Collect Date:	29-JUL-21 11:29
Receive Date:	03-AUG-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		2.68	+/-1.50	2.32	3.00	pCi/L			JXC9	08/17/21	0929	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.83	+/-1.56			pCi/L		1	AEA	08/25/21	0423	2161475	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.16	+/-0.420	0.286	1.00	pCi/L			LXP1	08/22/21	0715	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			84.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: August 30, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09062
Sample ID:	551609002
Matrix:	Ground Water
Collect Date:	29-JUL-21 13:54
Receive Date:	03-AUG-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	0.261	+/-0.943	1.71	3.00	pCi/L			JXC9	08/17/21	0929	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		0.840	+/-1.02			pCi/L		1	AEA	08/25/21	0423	2161475	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		0.579	+/-0.379	0.518	1.00	pCi/L			LXP1	08/22/21	0749	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: August 30, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09063
Sample ID:	551609003
Matrix:	Ground Water
Collect Date:	29-JUL-21 13:59
Receive Date:	03-AUG-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228		3.28	+/-1.41	1.96	3.00	pCi/L			JXC9	08/17/21	1113	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.50	+/-1.44			pCi/L		1	AEA	08/25/21	0423	2161475	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226	U	0.216	+/-0.282	0.483	1.00	pCi/L			LXP1	08/22/21	0749	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			85.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: August 30, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical

Client Sample ID:	AF09052	Project:	SOOP00119
Sample ID:	551609004	Client ID:	SOOP001
Matrix:	Ground Water		
Collect Date:	29-JUL-21 12:35		
Receive Date:	03-AUG-21		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.13	+/-1.19	1.97	3.00	pCi/L			JXC9	08/17/21	0929	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.21	+/-1.30			pCi/L		1	AEA	08/25/21	0423	2161475	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		2.08	+/-0.533	0.321	1.00	pCi/L			LXP1	08/22/21	0749	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			81	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: August 30, 2021

Company :	Santee Cooper
Address :	P.O. Box 2946101 OCO3 Moncks Corner, South Carolina 29461
Contact:	Ms. Jeanette Gilmetti
Project:	ABS Lab Analytical
Client Sample ID:	AF09071
Sample ID:	551609005
Matrix:	Ground Water
Collect Date:	29-JUL-21 15:38
Receive Date:	03-AUG-21
Collector:	Client
Project:	SOOP00119
Client ID:	SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid "As Received"													
Radium-228	U	1.78	+/-1.18	1.85	3.00	pCi/L			JXC9	08/17/21	0929	2157720	1
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		3.31	+/-1.28			pCi/L		1	AEA	08/25/21	0423	2161475	2
Rad Radium-226													
Lucas Cell, Ra226, Liquid "As Received"													
Radium-226		1.52	+/-0.497	0.497	1.00	pCi/L			LXP1	08/22/21	0749	2157760	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			87.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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: August 30, 2021

Santee Cooper
P.O. Box 2946101
OCO3
Moncks Corner, South Carolina

Contact: **Ms. Jeanette Gilmetti**

Workorder: **551609**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2157720										
QC1204877893 551609004 DUP										
Radium-228	U	1.13	U	0.433	pCi/L	N/A		N/A	JXC9	08/17/21 09:29
	Uncertainty	+/-1.19		+/-0.901						
QC1204877894 LCS										
Radium-228	51.5			45.9	pCi/L		89.2	(75%-125%)		08/17/21 11:13
	Uncertainty			+/-3.67						
QC1204877892 MB										
Radium-228			U	-0.0456	pCi/L					08/17/21 09:28
	Uncertainty			+/-0.829						
Rad Ra-226										
Batch 2157760										
QC1204878006 551182006 DUP										
Radium-226		4.72		5.09	pCi/L	7.59		(0%-20%)	LXP1	08/22/21 07:49
	Uncertainty	+/-0.810		+/-0.873						
QC1204878008 LCS										
Radium-226	27.0			24.8	pCi/L		91.9	(75%-125%)		08/22/21 07:49
	Uncertainty			+/-2.01						
QC1204878005 MB										
Radium-226			U	0.126	pCi/L					08/22/21 07:49
	Uncertainty			+/-0.195						
QC1204878007 551182006 MS										
Radium-226	135	4.72		130	pCi/L		92.8	(75%-125%)		08/22/21 07:49
	Uncertainty	+/-0.810		+/-9.30						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

QC Summary

Workorder: 551609

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

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

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

Radiochemistry
Technical Case Narrative
Santee Cooper
SDG #: 551609

Product: **GFPC, Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2157720

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

GEL Sample ID#	Client Sample Identification
551609001	AF09064
551609002	AF09062
551609003	AF09063
551609004	AF09052
551609005	AF09071
1204877892	Method Blank (MB)
1204877893	551609004(AF09052) Sample Duplicate (DUP)
1204877894	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 1204877894 (LCS) was recounted due to low recovery. The recount is reported. Sample 551609003 (AF09063) was recounted due to results more negative than the three sigma TPU. The second count is reported.

Product: **Lucas Cell, Ra226, Liquid**
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2157760

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

GEL Sample ID#	Client Sample Identification
551609001	AF09064
551609002	AF09062
551609003	AF09063
551609004	AF09052
551609005	AF09071

1204878005	Method Blank (MB)
1204878006	551182006(AF09051) Sample Duplicate (DUP)
1204878007	551182006(AF09051) Matrix Spike (MS)
1204878008	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, 1204878007 (AF09051MS), 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.

Contract Lab Info: GEL *Contract Lab Due Date (Lab Only):* 8/31/21 *Send report to* lcwillia@santeecooper.com & sjbrown@santeecooper.com

Chain of Custody

551609

santee cooper
Santee Cooper
One Riverwood Drive
Moncks Corner, SC 29461
Phone: (843)761-8000 Ext. 5148
Fax: (843)761-4175

Customer Email/Report Recipient:	Date Results Needed by:	Project/Task/Unit #:	Rerun request for any flagged QC
LCWILLIA @santeecooper.com	__/__/__	121567 / JM02.09.G01 / 36500	Yes No

Analysis Group

Labworks ID # (Internal use only)	Sample Location/ Description	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)	Comments • Method # • Reporting limit • Misc. sample info • Any other notes	RAD 226	RAD 228	TOTAL RAD CALC	
AF09064	WAP-13	7/29/21	1129	MDE/BRT		P	G	GW	2		X	X	X	
AF09062	WAP-12	|	1354	|		|	|	|	|		|	|	|	
AF09063	WAP-12 DUP	|	1359	|		|	|	|	|		|	|	|	
AF09052	WAP-3	|	1235	|		|	|	|	|		|	|	|	
AF09071	WAP-16	|	1538	|		|	|	|	|		|	|	|	

Relinquished by:	Employee#	Date	Time	Received by:	Employee #	Date	Time
SJBrown	35594	8/3/21	1000	[signature]	GEL	8/3/21	1000
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**
[signature]	GEL	8-3-21	1530	[signature]	GEL	8/3/21	1530
Relinquished by:	**Employee#**	**Date**	**Time**	**Received by:**	**Employee #**	**Date**	**Time**

Sample Receiving (Internal Use Only)
TEMP (°C):______ Initial:______
Correct pH: Yes No
Preservative Lot#:
Date/Time/Init for preservative:______

☐ METALS (all)		
☐ Ag	☐ Cu	☐ Sb
☐ Al	☐ Fe	☐ Se
☐ As	☐ K	☐ Sn
☐ B	☐ Li	☐ Sr
☐ Ba	☐ Mg	☐ Ti
☐ Be	☐ Mn	☐ Tl
☐ Ca	☐ Mo	☐ V
☐ Cd	☐ Na	☐ Zn
☐ Co	☐ Ni	☐ Hg
☐ Cr	☐ Pb	☐ CrVI

Nutrients
TOC
DOC
TP/TPO4
NH3-N
F
Cl
NO2
Br
NO3
SO4

MISC.
☐ BTEX
☐ Napthalene
☐ THM/HAA
☐ VOC
☐ Oil & Grease
☐ E. Coli
☐ Total Coliform
☐ pH
☐ Dissolved As
☐ Dissolved Fe
☐ Rad 226
☐ Rad 228
☐ PCB

Gypsum
Wallboard Gypsum(all below)
Sulfur

Coal
☐ Ultimate
☐ % Moisture
☐ Ash
☐ Sulfur
☐ BTUs
☐ Volatile Matter
☐ CHN
Other Tests:
☐ XRF Scan
☐ HGI
☐ Fineness
☐ Particulate Matter

Flyash
Ammonia
LOI
% Carbon
Mineral Analysis
Sieve
% Moisture

NPDES
Oil & Grease
TSS

Oil

Matrix codes: GW-groundwater, DW-drinking water, SW-surface water, WW-waste water, BW-boiler water, L-limestone, Oil-oil, S-Soil, SL-solid, C-coal, G-gypsum, FA-flyash, BA-bottom ash, M-misc (describe in comment section)
Preservative codes 1=<4°C 2=HNO3 3=H2SO4 4-HCl 5=Na2S2O3 6-Other (Specify)

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SOOP			SDG/AR/COC/Work Order: 551609	
Received By: TYE			Date Received: 8/3/21	
Carrier and Tracking Number			Circle Applicable: FedEx Express FedEx Ground UPS Field Services (Courier) Other	
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___	
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): ___ϕ___ CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓	✓		Preservation Method: (Wet Ice) Ice Packs Dry ice (None) Other: *all temperatures are recorded in Celsius GHem-IC TEMP: Chem-IC
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR2-20 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓	✓		Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓	✓		Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	✓		✓	
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials GB Date 8/4/21 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 30 August 2021

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	SC000122021-1
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	2019-165
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	T104704235-21-19
Utah NELAP	SC000122021-35
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Field Data Sheets

(Note: the color coding is to assist field personnel in determining when the well has stabilized enough to begin sample collection.)

Winyah Generating Station
South Ash Pond Background Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 1	29.44	4.16	4- 24	2/15/2021	1337	25.18
Drawdown:	4.19		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1306	14.57	4.12	310	88	8.1	3.14
1311	14.35	4.15	271	86	6.5	1.04
1316	14.3	4.15	258	86	0.9	0.85
1321	14.36	4.16	247	86	0	0.74
1326	14.39	4.17	240	85	0	0.7
1331	14.22	4.2	231	85	0	0.67
1334	14.16	4.2	228	85	0	0.67
1337	14.13	4.2	227	85	0	0.65

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Winyah Generating Station
South Ash Pond Background Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 1	29.44	6.14	4- 24	7/20/2021	1228	25.18
Drawdown:	6.15		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1154	27.12	4.24	166	89	1.2	2.63
1159	27.59	4.19	159	97	6.3	1.17
1204	27.7	4.18	158	94	3.9	1.71
1209	27.63	4.19	153	93	2.6	1.9
1214	27.78	4.21	144	92	2.3	1.64
1219	27.94	4.24	136	91	5.2	0.63
1222	28.18	4.22	139	90	1.7	0.49
1225	28	4.23	136	89	1	0.47
1228	28.33	4.24	133	88	0.9	0.44

Comments/Conditions:

Samples were collected by Ben Taylor and Melanie Goings

Winyah Generating Station
South Ash Pond Background Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WBW - 1	31.97	3.32	7- 17	2/15/2021	1221	19.77

Drawdown: 3.55 depth to GW (ft)

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1120	17.95	4.37	212	32	24.4	1.46
1125	17.41	4.27	229	27	0	1.04
1130	16.92	4.24	234	27	1.3	0.9
1135	16.47	4.21	235	27	0	0.79
1140	16.08	4.21	239	27	0	0.86
1145	15.79	4.21	250	27	0	0.85
1148	15.64	4.2	260	27	0	0.83
1151	15.5	4.19	268	27	0	0.82
1154	15.35	4.2	277	27	0	0.81
1157	15.23	4.2	285	27	0	0.79
1200	15.13	4.19	294	28	0	0.78
1203	15.03	4.19	303	28	0	0.73
1206	14.94	4.2	310	28	0	0.75
1209	14.84	4.2	317	28	0	0.76
1212	14.74	4.19	324	28	0	0.73
1215	14.64	4.2	329	28	0	0.72
1218	14.54	4.2	333	28	0	0.73
1221	14.41	4.2	339	28	0	0.72

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Winyah Generating Station
South Ash Pond Background Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WBW - 1	31.97	18.27	7- 17	7/20/2021	1107	19.8

Drawdown: 17.79 depth to GW (ft)

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1036	21.7	5.05	75	77	234	6.5
1041	22.27	4.82	92	63	32	1.39
1046	22.81	4.72	107	53	13.8	1.05
1051	23.34	4.75	117	48	7.4	0.87
1056	23.79	4.78	120	46	2.1	0.77
1101	24.19	4.76	120	43	0.2	0.72
1104	24.47	4.76	120	43	0	0.71
1107	24.72	4.77	121	42	0	0.69

Comments/Conditions:

Samples were collected by Ben Taylor and Melanie Goings

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 2	23.69	3.25	4- 24	2/15/2020	1440	26.9
Drawdown:	3.35		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1420	13.91	6.12	36	4230	20	2.22
1425	13.97	6.24	-10	3960	5	1.13
1430	13.69	6.28	-22	4010	0	0.93
1435	13.5	6.3	-28	4030	0	0.84
1440	13.36	6.31	-30	4010	0	0.79

Comments/Conditions:

Samples were collected by Trey West and Melanie Goings

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 2	23.69	5.22	4- 24	7/20/2021	1328	26.87
Drawdown:	5.32		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1303	29.35	6.21	-75	3790	0	1.13
1308	29.16	6.28	-81	3870	5.9	0.7
1313	27.07	6.28	-82	4050	10.7	0.72
1318	25.72	6.28	-82	4050	6.5	0.49
1323	25.46	6.28	-82	4060	6	0.47
1328	25.2	6.28	-82	4090	5.7	0.46

Comments/Conditions:

Samples were collected by Ben Taylor and Melanie Goings

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date .	Sample Time	Total Well Depth
WAP - 3	19.43	6.09	4- 24	2/24/2021	1318	24.94
Drawdown:	6.47		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1247	19.8	6.39	-4	637	210	1.98
1252	18.9	6.32	-1	724	174	1.02
1257	19.01	6.3	-1	715	70.1	0.96
1302	19.26	6.29	-2	716	20.9	0.89
1307	19.36	6.28	-3	723	17.2	0.81
1312	19.54	6.28	-5	732	15	0.75
1315	19.53	6.27	-5	735	15.4	0.75
1318	19.63	6.27	-6	738	15.3	0.74

Comments/Conditions:

Samples were collected by Trey West and Aaron Hill

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date .	Sample Time	Total Well Depth
WAP - 3	19.43	6.77	4- 24	7/29/2021	1235	24.94
Drawdown:	7.07		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1204	30.64	6.08	-35	1080	265	1.62
1209	29.27	6.03	-38	1190	22.3	0.63
1214	28.97	6.12	-47	1260	4.8	0.47
1219	28.66	6.15	-51	1310	3.5	0.41
1224	28.83	6.17	-51	1350	4.1	0.37
1229	28.54	6.17	-50	1390	4	0.43
1232	28.89	6.17	-50	1400	3.1	0.42
1235	29.29	6.18	-52	1420	4.7	0.41

Comments/Conditions:

Samples were collected by Ben Taylor and Melanie Goings

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 12	30.84	6.87	9- 19	3/4/2021	1309	21.8
Drawdown:	7		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1238	21.49	6.36	50	291	29.1	8.33
1243	19.3	5.2	114	745	0	1.46
1248	19.17	5.05	132	743	0	1.27
1253	19.01	4.97	146	755	0	1.14
1258	19.39	4.87	163	1860	0	0.56
1303	19.86	4.96	144	2100	0	0.48
1306	20.05	4.98	139	2120	0	0.48
1309	20.21	4.99	135	2130	0	0.48

Comments/Conditions: **Duplicate at 1314**

Samples were collected by Trey West and Marvin Lewis

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 12	30.84	9.02	9- 19	7/29/2021	1354	21.8
Drawdown:	9.34		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1323	32.32	5.02	164	171	0	1.9
1328	31.03	4.36	220	170	0	0.66
1333	30.67	4.35	217	170	0	0.48
1338	30.57	4.43	207	178	0	0.41
1343	30.64	4.46	202	185	0	0.39
1348	30.71	4.51	198	194	0	0.39
1351	30.65	4.52	196	197	0	0.39
1354	30.55	4.54	194	201	0	0.39

Comments/Conditions:
DUP at 1359

Samples were collected by Ben Taylor and Melanie Goings

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 13	21.97	5.19	8- 18	3/4/2021	1155	21.65
Drawdown:	6.26		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1135	19.24	6.25	-41	3050	0	1.87
1140	19.62	6.28	-57	3050	0	0.84
1145	19.65	6.31	-62	3080	0	0.67
1150	19.73	6.31	-64	3090	0	0.62
1155	19.88	6.32	-66	3110	0	0.56

Comments/Conditions:

Samples were collected by Trey West and Marvin Lewis

Winyah Generating Station
South Ash Pond CCR Groundwater Monitoring Wells

Well ID	TOC Elevation (feet)	GW Depth (feet)	Screen Intervals (ft, bgs)	Sample Date	Sample Time	Total Well Depth
WAP - 13	21.97	6.24	8- 18	7/29/2021	1129	21.65
Drawdown:	7.41		depth to GW (ft)			

Time	Temp round 1 (celcius)	pH round 1 (units)	Eh ORP (mV)	Spec Cond round 1 (uS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppm)
1101	24.15	6.2	-81	2700	8.4	7.84
1106	24.81	6.24	-92	2690	5	0.92
1111	24.84	6.24	-96	2680	0	0.64
1116	24.86	6.31	-100	2800	0	0.56
1121	25.03	6.35	-99	2930	0	0.53
1126	24.87	6.38	-100	2940	0	0.51
1129	24.8	6.4	-101	2950	0	0.5

Comments/Conditions:

Samples were collected by Ben Taylor and Melanie Goings