

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT CLOSED GYPSUM POND, CROSS GENERATING STATION CROSS, SOUTH CAROLINA

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for South Carolina Public Service Authority Moncks Corner, South Carolina

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1. Annual Groundwater Monitoring Report Summary

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

Santee Cooper filed a Notice of Intent with the South Carolina Department of Health and Environmental Control (SCDHEC) on 10 March 2016 to initiate closure of the Gypsum Pond. The SCDHEC-approved closure plan met the requirements of § 257.102(b) and as of 17 October 2016, Santee Cooper had removed all CCR material from the Gypsum Pond. On 22 March 2017, SCDHEC formally certified the closure. As a result of the Gypsum Pond being closed by complete removal of CCR material prior to the deadline to establish a groundwater monitoring system in 257.90(b)(1), Santee Cooper concluded at that time the Gypsum Pond was not subject to the groundwater monitoring and corrective action requirements of the Federal CCR Rule.

Upon further evaluation of the Rule and in consultation with the US EPA, Santee Cooper decided that the groundwater monitoring and corrective action requirements of the Federal CCR Rule do apply to this unit even after closure by removal was completed. To that end, Santee Cooper has moved ahead with development of a groundwater monitoring system around the Closed Gypsum Pond, located in a highly congested and active area of the generating station with multiple simultaneous ongoing operations.

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

- At the start of the current annual reporting period (1 January 2021), Santee Cooper was evaluating groundwater flow conditions and was in the process of installing additional groundwater monitoring wells to supplement the original monitoring well network constructed in 2020. The additional monitoring wells (CGYP-4, CGYP-5, and CGYP-6) were installed to better characterize groundwater flow and groundwater quality in the vicinity of the closed Unit.
- At the end of the current annual reporting period (31 December 2021), seven rounds of baseline groundwater sampling have been validated for the newly installed wells at the Closed Gypsum Pond. The eighth round of baseline groundwater samples were collected in December 2021, however the analytical results from this sampling round were not received in 2021 and therefore are not included in this annual report. Baseline sampling along with detection monitoring will be completed in the first quarter of 2022 and will be reported in the 2022 annual report.
- Since baseline and detection monitoring were not completed in 2021, the statistical analysis to
 determine if statistically significant increases of one or more of the Appendix III constituents are
 present downgradient of the Closed Gypsum Pond was not conducted in 2021.



 Since detection monitoring will not be completed until 2022, an assessment monitoring program, an assessment of corrective measures, a public meeting, remedy selection, and remedial activities were not required to be initiated or completed in 2021 for this unit.

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)

Except as provided for in § 257.100 for inactive CCR surface impoundments, 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.

As stated in Section 1, Santee Cooper is complying with the groundwater monitoring and corrective action requirements described under CFR Title 40 § 257.90 through § 257.98 of the CCR Rule for the Closed Gypsum Pond. This document addresses the requirements outlined in § 257.90(e) for the 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 new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. 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 Groundwater Monitoring and Corrective Action Report documents the activities completed in 2021 for the Closed Gypsum Pond as required by the CCR Rule. Following installation of the additional monitoring wells (CGYP-4, CGYP-5, and CGPY-6) required to comply with § 257.91, seven rounds of baseline sampling and analysis were completed per the requirements described in § 257.93. While evaluating the baseline sampling results from these new monitoring wells, Santee Cooper concluded that the analytical results from monitoring well CGYP-5 were not representative of groundwater quality associated with the Closed Gypsum Pond and therefore monitoring well CGYP-5



was removed from the network of wells monitoring the Closed Gypsum Pond. Baseline sampling for the original monitoring wells was completed in 2020 prior to the installation of the new monitoring wells for the Closed Gypsum Pond.

2.2.1 Status of the Groundwater Monitoring Program

Following collection of eight rounds of baseline and one round of detection monitoring from the original monitoring wells (CGYP-1, CGYP-2 and CGYP-3) in 2020, it was determined that the monitoring network needed to be supplemented with additional monitoring wells to comply with § 257.91(c). One of the three monitoring wells (CGYP-3) was not hydraulically downgradient of the unit and therefore did not monitor potential releases from the Closed Gypsum Pond. Given this finding, the original monitoring network for the Closed Gypsum Pond was supplemented with three additional monitoring wells (CGYP-4, CGYP-5, and CGYP-6) to comply with § 257.91(c).

Seven rounds of baseline sampling were completed for the newly installed monitoring wells in 2021. As previously stated, Santee Cooper concluded that the analytical results from monitoring well CGYP-5 were not representative of groundwater quality associated with the Closed Gypsum Pond and therefore monitoring well CGYP-5 has been removed from the monitoring network. The eighth round of baseline sampling was collected in December 2021. The detection monitoring event will be completed in the first quarter of 2022.

2.2.2 Key Actions Completed

The following key actions were completed in 2021:

- In accordance with § 257.91(c), a groundwater monitoring network for the Closed Gypsum Pond has been supplemented with the installation of three additional groundwater monitoring wells CGYP-4, CGYP-5, and CGYP-6. Well installation records are provided in Appendix B.
- In accordance with § 257.94(b), a minimum of eight independent samples were collected from
 each monitoring well followed by one round of detection monitoring for the original monitoring
 wells. Seven rounds of baseline sampling were completed for the new monitoring wells (CGYP-4
 and CGYP-6). The eighth round of baseline groundwater samples were collected in December
 2021, however the validated analytical results from this sampling round were not received in
 2021.
- Slug testing was performed on all six groundwater monitoring wells for the Closed Gypsum Pond
 in November 2021. This data provided additional information on the hydraulic conductivity of
 the uppermost aquifer in the immediate vicinity of the Closed Gypsum Pond. The findings are
 summarized in Appendix C.

2.2.3 Problems Encountered

As previously stated, while evaluating the baseline sampling results from these new monitoring wells, it was concluded that the analytical results obtained from monitoring well CGYP-5 were not representative of the groundwater quality associated with the Closed Gypsum Pond. The groundwater elevation data, field parameters, and analytical results were atypical compared to the adjacent wells.



2.2.4 Actions to Resolve Problems

Monitoring well CGYP-5 was removed from the network of wells monitoring the Closed Gypsum Pond.

2.2.5 Project Key Activities for Upcoming Year

Key activities to be completed in 2022 will include the following:

- Re-certify the groundwater monitoring network in accordance with § 257.91(f) after confirming localized groundwater flow direction in the vicinity of the Closed Gypsum Pond;
- Complete baseline and detection monitoring for the newly established monitoring locations in accordance with § 257.94;
- Conduct a statistical analysis to determine if statistically significant increases of one or more of the Appendix III constituents are present downgradient of the Closed Gypsum Pond.
- Prepare the 2022 annual report; place it in the operating record as required by § 257.105(h)(1), notify the Relevant State Director [§ 257.106(d)]; and post to the facility's publicly available CCR website [§ 257.107(d)].

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 Closed Gypsum Pond and associated upgradient and downgradient wells 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;

To comply with the requirements of § 257.91, the groundwater monitoring network installed in 2020 and 2021 for the Closed Gypsum Pond consists of two upgradient and three downgradient monitoring wells. Monitoring well construction details are summarized in Table 1 and well installation records are provided in Appendix B. None of the monitoring wells were decommissioned during the previous calendar year. However, as previously stated, while evaluating the baseline sampling results from the new monitoring wells installed in 2021, it was concluded that the analytical results from monitoring well



CGYP-5 were not representative of groundwater quality associated with the Closed Gypsum Pond and therefore monitoring well CGYP-5 has been removed from the network of wells monitoring the Closed Gypsum Pond.

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 § 257.94(b), eight independent baseline samples were collected in 2021 from the newly installed monitoring wells (CGYP-4, CGYP-5, and CGYP-6). The eighth round of baseline sampling was collected in December 2021, however, the analytical results from the eighth round of baseline sampling will be received and validated in January 2022. The detection monitoring event is scheduled to be completed in the first quarter of 2022. A summary of the groundwater monitoring program for the Closed Gypsum Pond, including the analytical results for Appendix III and Appendix IV constituents, is presented in Table 2. Laboratory analytical results, along with field sampling forms, are provided in Appendix A 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

The statistical analysis of the detection monitoring results will be completed after completing the detection monitoring event in 2022, as required by § 257.91 and § 257.94.

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.

Slug testing was performed on all six groundwater monitoring wells for the Closed Gypsum Pond in November 2021. This data provided additional information on the hydraulic conductivity of the uppermost aquifer in the immediate vicinity of the Closed Gypsum Pond. The range of hydraulic conductivities from the monitoring wells that were tested were 1.387E-04 (cm/sec) to 4.800E-03 (cm/sec). These results are comparable to the Site Hydrogeologic Characterization Report which reported a range of hydraulic conductivities of 3.357E-04 (cm/sec) to 8.93E-03 (cm/sec) for the shallow aquifer. This range of hydraulic conductivities is typical for the soil types identified and for this depositional setting. This information, combined with the calculated horizontal hydraulic gradients, and an assumed effective porosity of 25 percent will be used to report on groundwater flow direction and rate following each semiannual sampling event as required by § 257.93(c). These findings are provided in Appendix C. Groundwater flow rate and direction are provided as Figures 2 and 3 for each sampling event as specified in § 257.93(c).



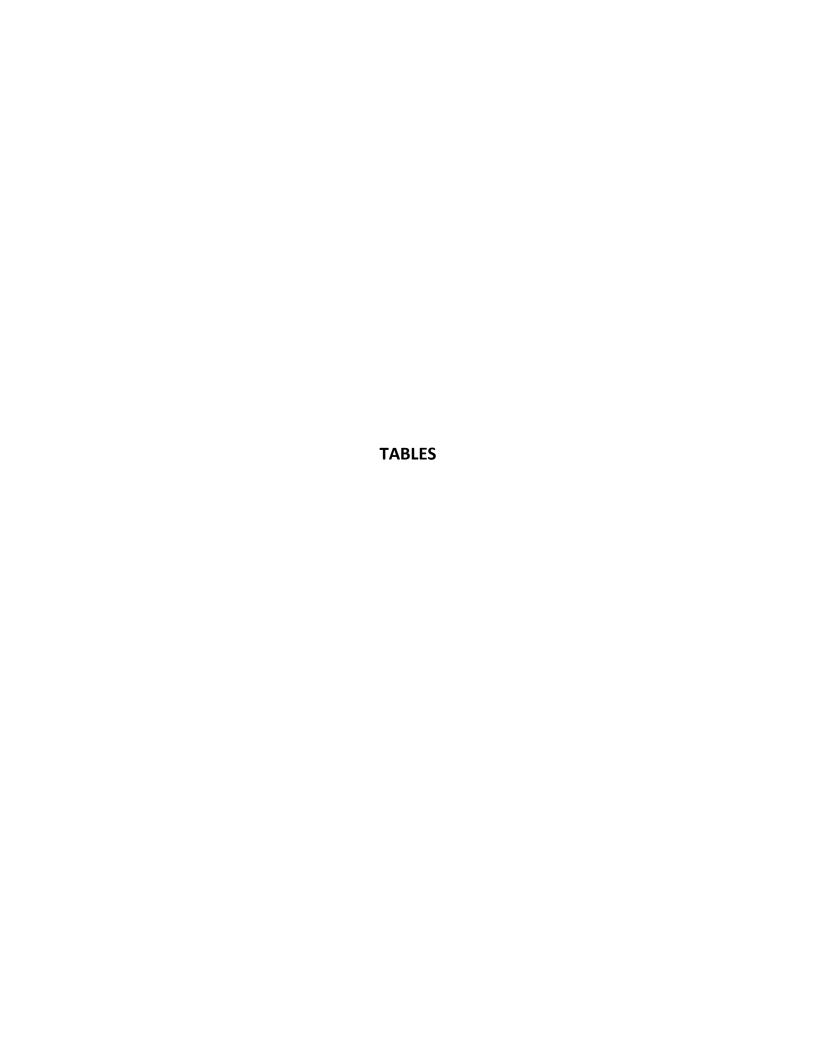


TABLE 1
GROUNDWATER MONITORING WELL LOCATION AND CONSTRUCTION DETAILS
CROSS GENERATING STATION - CLOSED GYPSUM POND
SANTEE COOPER
PINEVILLE, SOUTH CAROLINA

Well	CCR Unit ¹	Easting	Northing	Top of Pad Elevation (ft msl)	Top of Riser Elevation (ft msl)	Surface Grout (ft bgs)	Bentonite (ft bgs)	Sand Pack (ft bgs)	Screen Zone (ft bgs)	Screen Length (ft)	Well Radius (in)
Existing Wells											
CBW-1	Background ¹	2268633.71	560527.87	83.17	85.80	0.0 - 8.0	8.0 - 11.0	11.0 - 24.0	14.0 - 24.0	10	2.00
PM-1	Background ¹	2269801.59	558532.71	81.62	83.24	0.0 - 2.0	2.0 - 3.5	3.5 - 24.0	4.0 - 24.0	20	2.25
New Wells											
CGYP-1	Closed Gypsum Pond ¹	2272412.89	559370.06	89.43	91.89	0.0 - 10.0	10.0 - 12.0	12.0 - 24.0	14.0 - 24.0	10	2.00
CGYP-2	Closed Gypsum Pond ¹	2272449.67	559587.80	81.82	81.82	0.0 - 4.0	4.0 - 6.0	6.0 - 18.0	8.0 - 18.0	10	2.00
CGYP-3	Closed Gypsum Pond ¹	2272355.06	559738.32	81.49	81.49	0.0 - 6.0	6.0 - 8.0	8.0 - 20.0	10.0 - 20.0	10	2.00
CGYP-4	Closed Gypsum Pond ¹	2272335.42	559802.64	80.74	83.49	0.0 - 6.0	6.0 - 8.0	8.0 - 20.0	10.0 - 20.0	10	2.00
CGYP-5	Closed Gypsum Pond ¹	2272132.31	559409.05	81.27	84.12	0.0 - 5.0	5.0 - 7.0	7.0 - 19.0	9.0 - 19.0	10	2.00
CGYP-6	Closed Gypsum Pond ¹	2272017.0	559444.43	80.30	83.23	0.0 - 5.0	5.0 - 7.0	7.0 - 19.0	9.0 - 19.0	10	2.00

Notes:

1. The existing monitoring network for the Closed Gypsum Pond was supplemented with three additional wells (CGYP-5 and CGYP-6) to comply with § 257.91. During baseline sampling from the new wells it was concluded that the analytical results from monitoring well CGYP-5 were not representative of groundwater quality associated with the Closed Gypsum Pond and therefore monitoring well CGYP-5 has been removed from the network of wells monitoring the Closed Gypsum Pond.

bgs = below ground surface

ft = feet

in = inches

msl = mean sea level

Datum of Elevations in NAVD 88

SANTEE COOPER

PINEVILLE, SOUTH CAROLINA

				Chemical Group		Det	ection Monito	oring - EPA	Appendix III C	onstituents						As	sessment N	lonitoring - E	EPA Append	ix IV Constit	uents				
				Chemical Name	Boron,	Calcium,	Chloride	Fluoride	Sulfate	Total Dissolved	рН	Antimony,	Arsenic,	Barium,	Beryllium,	Cadmium,	Chromium,	Cobalt,	Fluoride	Lead,	Lithium,	Mercury,	Molybdenum,	Selenium,	Thallium,
					Total	Total				Solids (TDS)	Pii	Total	Total	Total	Total	Total	Total	Total		Total	Total	Total	Total	Total	Total
				Method	EPA 6020B	EPA 6020B	EPA 300.0	EPA 300.0	EPA 300.0	SM 2540C		EPA 6020B	EPA 6020B		EPA 6020B		EPA 6020B	EPA 6020B	EPA 300.0		EPA 6010D	EPA 7470	EPA 6010D	EPA 6020B	EPA 6020B
				US EPA MCL/RSL Units	ug/L	mg/L	mg/L	4 mg/L	- mg/L	- mg/L	- pH units	ug/L	10 ug/L	2000 ug/L	ug/L	5 ug/L	100 ug/L	6 ug/L	mg/L	15 ug/L	40 ug/L	2 ug/L	100 ug/L	50 ug/L	ug/L
Location	Sampling	Sample	Sample	Lab Sample ID	ug/L	nig/L	IIIg/L	IIIg/L	mg/L	mg/L	pn units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Hig/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location	Round	Date	Type	Lab Gample 15																					
CBW-1	Background	01/26/2021	N	AE94854	18	29.2	3.22	0.15	80.7	138.8	4.31	< 5	< 5	46.6	< 0.5	< 0.5	< 5	0.66	0.15	2.5	< 10	< 0.2	< 10	< 10	< 1
CBW-1	Background	06/21/2021	N	AF07259	< 40	29.9	3.05	0.19	86.6	178.8	4.25	< 5	< 5	42.3	< 0.5	< 0.5	< 5	0.7	0.19	2.6	< 20	< 0.2	< 20	< 10	< 1
CBW-1		Total	Samples		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
PM-1	Background	01/26/2021	N	AE94872	< 15	14.3	11.8	< 0.1	9.98	110	5.03	< 5	< 5	85.7	< 0.5	< 0.5	< 5	1	< 0.1	< 1	< 10	< 0.2	< 10	< 10	< 1
PM-1	Background	06/21/2021	N	AF07281	< 15	17	12	< 0.1	11.9	155	5.21	< 5	< 5	87.3	< 0.5	< 0.5	< 5	0.94	< 0.1	< 1	< 10	< 0.2	< 10	< 10	< 1
PM-1			Samples	.=	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CGYP-1	Detection	02/10/2021	N	AE94861	14000	353	791	1.69	613	2081	3.8	< 5	45.2	39.7	12.7	< 0.5	< 5	58.7	1.69	16.5	24	< 0.2	< 10	16.3	< 1
CGYP-1 CGYP-1	Detection Detection	04/07/2021 07/07/2021	N N	AF00629 AF07267	11000 9400	276 218	795 728	1.31 0.97	445 377	2301 1770	4.1 4.19	< 5 < 5	33.6 18.1	44.8 52.2	10.3 6.1	< 0.5 < 0.5	< 5 < 5	53.6 36.2	1.31 0.97	8 9.7	20 14	< 0.2 < 0.2	< 20 < 10	< 10 < 10	< 1 < 1
CGYP-1	Detection		Samples	AF0/20/	3400	210	720	0.97	3//	3	4.19	3	10.1	32.2	0.1	3	2	30.2	0.97	3.7	14	3	2 10	3	3
CGYP-2	Detection	02/10/2021	N	AE94862	960	298	79.5	1.3	957	1538	3.77	< 5	18.4	21	2.5	< 0.5	< 5	19	1.3	19.6	13	< 0.2	< 10	< 10	< 1
CGYP-2	Detection	02/10/2021	FD	AE94863	980	267	79.4	1.26	1035	1526		< 5	17.7	21.8	2.6	< 0.5	< 5	19	1.26	18.9	13	< 0.2	< 10	< 10	< 1
CGYP-2	Detection	04/07/2021	N	AF00630	850	273	55.87	1.08	987	1536	4.02	< 5	16.9	14.5	3.1	< 0.5	< 5	18.3	1.08	17.5	14	< 0.2	< 10	< 10	< 1
CGYP-2	Detection	04/07/2021	FD	AF00631	890	276	56.4	1.04	986	1670	-	< 5	17	14.3	2.9	< 0.5	< 5	18.4	1.04	17	15	< 0.2	< 10	< 10	< 1
CGYP-2	Detection	07/07/2021	N	AF07268	1300	253	83.1	0.87	937	1618	3.8	< 5	19.4	17.8	2.8	< 0.5	< 5	20.6	0.87	20.8	15	< 0.2	< 10	< 10	< 1
CGYP-2	Detection	07/07/2021	FD	AF07269	1300	263	81.4	0.87	945	1615	-	< 5	18.9	17.9	3.2	< 0.5	< 5	19.6	0.87	20.2	14	< 0.2	< 10	< 10	< 1
CGYP-2			Samples		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CGYP-3	Detection	02/10/2021	N	AE94864	25000	729	1460	6.22	1010	4090	3.5	< 5	22	40.5	35	0.78	< 5	151	6.22	92	110	< 0.2	< 20	< 10	< 1
CGYP-3	Detection	04/07/2021	N	AF00632	23000	700	1405	3.32	972	4958	3.73	< 5	19.8	38.4	46.5	0.53	6.1	143	3.32	24.8	94	0.21	< 10	< 10	< 1
CGYP-3	Detection	07/07/2021	N	AF07270	17000 3	495	950 3	1.88	993	3291 3	3.56	< 5 3	18.3	37.8	26.9	< 0.5	7.9	96.7 3	1.88	29.7	56 3	< 0.2	< 10 3	< 10 3	< 1
CGYP-3 CGYP-4	Baseline	04/07/2021	Samples N	AF00633	7600	348	733	3.19	602	2178	3.78	< 5	10.3	45.4	17.4	< 0.5	- 3	53.2	3.19	11.3	58	< 0.2	< 10	< 10	<1
CGYP-4	Baseline	05/13/2021	N	AF03568	8000	360	683	2.82	598	2078	3.88	< 5	10.5	37.5	16.4	< 0.5	< 5	49.8	2.82	12.2	58	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	05/13/2021	FD	AF03569	8000	343	719	1.9	632	2195	-	< 5	10.9	38.4	16.1	< 0.5	< 5	52.1	1.9	12.8	59	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	07/08/2021	N	AF07271	7700	324	670	1.85	621	2168	3.65	< 5	11.3	39.5	17.9	< 0.5	< 5	49.4	1.85	12.6	58	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	09/01/2021	N	AF13773	8000	319	617	1.79	605	2038	3.65	< 5	11.5	36.4	15	< 0.5	< 5	48.7	1.79	14.6	64	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	09/01/2021	FD	AF13774	7800	318	608	1.79	593	2004	-	< 5	11.6	35.9	14	< 0.5	< 5	48.4	1.79	14.5	63	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	09/27/2021	N	AF15787	7800	325	574	1.63	584	1749	3.65	< 5	11.8	37.1	15.6	< 0.5	< 5	47.8	1.63	14.7	67	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	09/27/2021	FD	AF15788	8200	334	683	1.21	705	1846	-	< 5	11.2	36.9	15.1	< 0.5	< 5	46.7	1.21	14.1	67	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	10/26/2021	N	AF18534	6800	304	553	0.83	611	1614	3.66	< 5	10.4	33.6	15.2	< 0.5	< 5	46.3	0.83	14.5	53	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	10/26/2021	FD	AF18535	6900	307	554	0.8	612	1760	-	< 5	10.7	34	15	< 0.5	< 5	48	0.8	15	57	< 0.2	< 10	< 10	< 1
CGYP-4	Baseline	11/17/2021	N	AF20415	7100	310	537	1.53	600	1676	3.54	< 5	11.2	33.3 34	14.9	< 0.5	< 5	46.1	1.53	14.7	52	< 0.2	< 10	< 10 < 10	< 1
CGYP-4	Baseline	11/17/2021	FD Samples	AF20416	7200	304	545 7	1.45 7	607	1729 7	7	< 5	11.6 7	7	7	< 0.5	< 5 7	45.1 7	1.45	14.8	53	< 0.2	< 10	< 10 7	< 1
CGYP-5	Baseline	04/07/2021	N	AF00634	3100	195	231	0.31	314	1188	5.36	< 5	< 5	51.9	6.5	< 0.5	< 5	44.8	0.31	1.2	60	< 0.2	< 10	< 10	< 1
CGYP-5	Baseline	05/13/2021	N	AF03570	2900	195	200	0.37	318	1182	5.32	< 5	< 5	39.9	8.3	< 0.5	< 5	44.3	0.37	1.8	59	< 0.2	< 10	< 10	< 1
CGYP-5	Baseline	07/08/2021	N	AF07272	2900	186	210	0.32	322	1094	4.99	< 5	< 5	39.4	8.7	< 0.5	< 5	44.7	0.32	2	58	< 0.2	< 10	< 10	< 1
CGYP-5	Baseline	08/31/2021	N	AF13775	3200	208	241	0.35	310	1290	5.17	< 5	< 5	47.8	6.8	< 0.5	< 5	48.9	0.35	1.5	62	< 0.2	< 10	< 10	< 1
CGYP-5	Baseline	09/27/2021	N	AF15789	5000	225	277	0.25	342	1311	4.92	< 5	< 5	91.9	10.5	< 0.5	< 5	63.2	0.25	1.8	84	< 0.2	< 10	< 10	< 1
CGYP-5	Baseline	10/26/2021	N	AF18536	4500	225	344	0.21	397	1221	4.93	< 5	< 5	107	10.6	< 0.5	< 5	70.6	0.21	1.5	76	< 0.2	< 10	< 10	< 1
CGYP-5	Baseline	11/17/2021	N	AF20417	4400	227	312	0.35	369	1185	4.95	< 5	< 5	117	11.5	< 0.5	< 5	68.3	0.35	2.3	77	< 0.2	< 10	< 10	< 1
CGYP-5			Samples		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
CGYP-6	Baseline	04/07/2021	N	AF00635	7000	480	1160	1.1	96.3	3952	3.68	< 5	< 5	326	27.7	< 0.5	< 5	163	1.1	13	140	< 0.2	< 10	< 10	< 1
CGYP-6	Baseline	05/13/2021	N	AF03571	6900	468	1090	0.84	83.6	2804	3.7	< 5	< 5	437	23.9	< 0.5	< 5	149	0.84	12.7	130	< 0.2	< 10	< 10	< 1
CGYP-6 CGYP-6	Baseline Baseline	07/08/2021 08/31/2021	N N	AF07273 AF13776	6700 6900	438 441	1082 1033	0.99 0.75	84.3 84.3	2851 2740	3.54 3.67	< 5 < 5	< 5 < 5	585 564	21.2 19.7	< 0.5 < 0.5	< 5	147 150	0.99 0.75	13.1 13.6	120 130	< 0.2 < 0.2	< 10 < 10	< 10 < 10	< 1 < 1
CGYP-6	Baseline	08/31/2021	N N	AF15776 AF15790	7300	474	1033	0.75	90.9	2740	3.62	< 5 < 5	< 5 < 5	705	21.9	< 0.5	< 5 < 5	150	0.75	13.6	150	< 0.2	< 10	< 10	< 1
CGYP-6	Baseline	10/26/2021	N N	AF18537	6700	474 455	1061	0.98	90.9	2382	3.54	< 5 < 5	< 5 < 5	529	21.9	< 0.5	< 5 < 5	157	0.98	15.7	110	< 0.2	< 10	< 10	< 1
CGYP-6	Baseline	11/17/2021	N	AF20418	5200	396	865	0.42	67	1899	3.66	< 5	< 5	865	19.4	< 0.5	< 5	128	0.42	6.8	110	< 0.2	< 10	< 10	< 1
CGYP-6	Bassinis		Samples	7.11 20 110	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
5511.0		·Otai	Cu.iipioo								-														

ABBREVIATIONS AND NOTES:

-: Not Analyzed FD: Field Duplicate N: Normal

CFR: Code of Federal Regulations
RSL: Regional Screening Level THQ: Target Hazard Quotient
US EPA: United States Environmental
Protection Agency mg/L: milligram per liter ug/L: micrograms per liter uS/cm: microSiemen per centimeter mv: millivolt NTU: Nephelometric Turbidity Units pCi/L: picoCurie per liter

- Total Samples do not include field duplicates Criteria used for cobalt, lithium, and molybdenum are RSLs for Tapwater where THQ=1.0 (May 2018)
- USEPA. 2016. Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities. July 26. 40 CFR Part 257.

QUALIFIERS:

<: Not detected, value is the laboratory reporting limit

SANTEE COOPER

PINEVILLE, SOUTH CAROLINA

				Chemical Group		Radiological		Field Parameters					
				Chemical Name	Radium-226	Radium-228	Radium-226 &	Conductivity	Dissolved	ORP	рН	Temperature	Turbidity
				Method	EPA 903.1 Mod	EPA 904.0	228 EPA 903.1 Mod	,	Oxygen	SM2580	'	'	,
				US EPA MCL/RSL	-	-	5	-	-	-	-	-	-
				Units	pCi/L	pCi/L	pCi/L	uS/cm	mg/L	mv	pH units	Deg C	NTU
Location	Sampling Round	Sample Date	Sample Type	Lab Sample ID									
CBW-1	Background	01/26/2021	N	AE94854	0.436	1.29	1.73	192	0.71	338	4.31	20.25	0
CBW-1	Background	06/21/2021	N	AF07259	0.433	0.12	0.552	194	0.66	75	4.25	24.16	0.2
CBW-1	D. d		Samples	A F 0 4 0 7 0	2	2	2	2	2	2	2	2	2
PM-1 PM-1	Background Background	01/26/2021 06/21/2021	N N	AE94872 AF07281	0.559 0.369	2.88 1.73	3.44 2.1	143 169	6.12 3.96	1 45	5.03 5.21	19.47 26.49	4.4 4.3
PM-1	Dackground		Samples	AI 07201	2	2	2	2	2	2	2	2	2
CGYP-1	Detection	02/10/2021	N	AE94861	1.23	2.63	3.86	3410	0.6	235	3.8	19.81	0
CGYP-1	Detection	04/07/2021	N	AF00629	1.08	2.81	3.89	3200	0.37	219	4.1	23.58	0
CGYP-1	Detection	07/07/2021	N	AF07267	1.17	1.61	2.77	2670	0.77	145	4.19	23.16	0.6
CGYP-1 CGYP-2	Detection	02/10/2021	Samples	AE94862	0.796	3 2.04	2.83	3 1710	0.43	3 271	3.77	3 19.11	3 0
CGYP-2 CGYP-2	Detection Detection	02/10/2021	N FD	AE94862 AE94863	0.796 0.752	2.04 1.14	1.9	- 1710	-	-	3.11	19.11	-
CGYP-2	Detection	04/07/2021	N	AF00630	0.272	3.91	4.18	1650	0.38	247	4.02	21.36	0
CGYP-2	Detection	04/07/2021	FD	AF00631	0.29	4.76	5.05	-	-	-	-	-	-
CGYP-2	Detection	07/07/2021	N	AF07268	0.578	1.92	2.5	1530	0.67	241	3.8	25.39	0.2
CGYP-2	Detection	07/07/2021	FD	AF07269	0.762	2.31	3.07	3	3	3	3	3	3
CGYP-2 CGYP-3	Detection	02/10/2021	Samples N	AE94864	3 1.05	3 3.63	3 4.69	5700	0.51	328	3.5	19.17	0
CGYP-3	Detection	04/07/2021	N	AF00632	0.433	7.5	7.93	5280	0.32	240	3.73	23.64	0
CGYP-3	Detection	07/07/2021	N	AF07270	1.24	3.79	5.03	4090	0.72	225	3.56	24.83	0.3
CGYP-3		Total	Samples		3	3	3	3	3	3	3	3	3
CGYP-4	Baseline	04/07/2021	N	AF00633	0.713	5.66	6.37	3050	0.54	246	3.78	22.48	0
CGYP-4 CGYP-4	Baseline	05/13/2021	N FD	AF03568	1.02 1.05	4.82	5.84	2990	0.64	122	3.88	22.18	0
CGYP-4 CGYP-4	Baseline Baseline	05/13/2021 07/08/2021	N PD	AF03569 AF07271	1.05	3.55 2.51	4.6 3.56	2940	- 1.01	141	3.65	23.08	0.6
CGYP-4	Baseline	09/01/2021	l N	AF13773	0.669	3.97	4.64	2860	0.87	202	3.65	24.12	3.6
CGYP-4	Baseline	09/01/2021	FD	AF13774	0.773	2.79	3.57	-	-	-	-	-	-
CGYP-4	Baseline	09/27/2021	N	AF15787	1	4.29	5.29	2800	0.65	212	3.65	24.49	0
CGYP-4	Baseline	09/27/2021	FD	AF15788	0.67	3.87	4.54	-	-	-	-	-	-
CGYP-4 CGYP-4	Baseline Baseline	10/26/2021	N FD	AF18534	3.94 4.5	1.61 3.92	5.56 8.42	2660	0.4	238	3.66	23.95	0
CGYP-4 CGYP-4	Baseline	10/26/2021 11/17/2021	N PD	AF18535 AF20415	4.5 1.18	3.92 3.72	4.9	2590	0.47	288	3.54	23.99	0
CGYP-4	Baseline	11/17/2021	FD	AF20416	1.8	0.76	2.56	-	-	-	-	-	-
CGYP-4			Samples		7	7	7	7	7	7	7	7	7
CGYP-5	Baseline	04/07/2021	N	AF00634	0.506	2.33	2.84	1380	0.39	172	5.36	22.32	1.3
CGYP-5	Baseline	05/13/2021	N	AF03570	0.915	0.581	1.5	1270	0.64	151	5.32	21.86	0
CGYP-5 CGYP-5	Baseline Baseline	07/08/2021 08/31/2021	N N	AF07272 AF13775	0.34 0.56	0.366 1.29	0.706 1.85	1260 1420	0.46 0.45	108 92	4.99 5.17	24.29 25.44	0 1.2
CGYP-5	Baseline	09/27/2021	N	AF15775 AF15789	0.81	1.29	2.76	1500	0.45	163	4.92	25.73	0
CGYP-5	Baseline	10/26/2021	N	AF18536	4.68	2.39	7.07	1540	0.36	177	4.93	23.94	Ō
CGYP-5	Baseline	11/17/2021	N	AF20417	1.31	0.28	1.59	1510	1.53	230	4.95	23.9	0
CGYP-5	5		Samples	450000	7	7	7	7	7	7	7	7	7
CGYP-6 CGYP-6	Baseline	04/07/2021 05/13/2021	N N	AF00635 AF03571	0.85 1.52	2.83 4.79	3.68	3700 3710	0.33	276 253	3.68 3.7	23.98 20.67	0
CGYP-6	Baseline Baseline	05/13/2021	N N	AF07273	1.52	4.79 4.24	6.31 6.08	3710 3540	0.47 0.75	202	3.7	25.56	0
CGYP-6	Baseline	08/31/2021	N	AF07273 AF13776	1.49	4.04	5.53	3460	0.73	132	3.67	27.22	4.2
CGYP-6	Baseline	09/27/2021	N	AF15790	1.97	5.96	7.93	3520	0.62	222	3.62	27.14	0
CGYP-6	Baseline	10/26/2021	N	AF18537	2.54	3.94	6.48	3670	0.34	278	3.54	24.18	0
CGYP-6	Baseline	11/17/2021	N	AF20418	3.82	5.88	9.69	3170	0.53	287	3.66	23.24	0
CGYP-6		Total	Samples		7	7	7	7	7	7	7	7	7

ABBREVIATIONS AND NOTES:

-: Not Analyzed FD: Field Duplicate N: Normal

CFR: Code of Federal Regulations RSL: Regional Screening Level

THQ: Target Hazard Quotient
US EPA: United States Environmental
Protection Agency

mg/L: milligram per liter ug/L: micrograms per liter uS/cm: microSiemen per centimeter mv: millivolt

NTU: Nephelometric Turbidity Units pCi/L: picoCurie per liter

- Total Samples do not include field duplicates
- Criteria used for cobalt, lithium, and molybdenum are RSLs for Tapwater where THQ=1.0 (May 2018)
- USEPA. 2016. Final Rule: Disposal of Coal Combustion Residuals

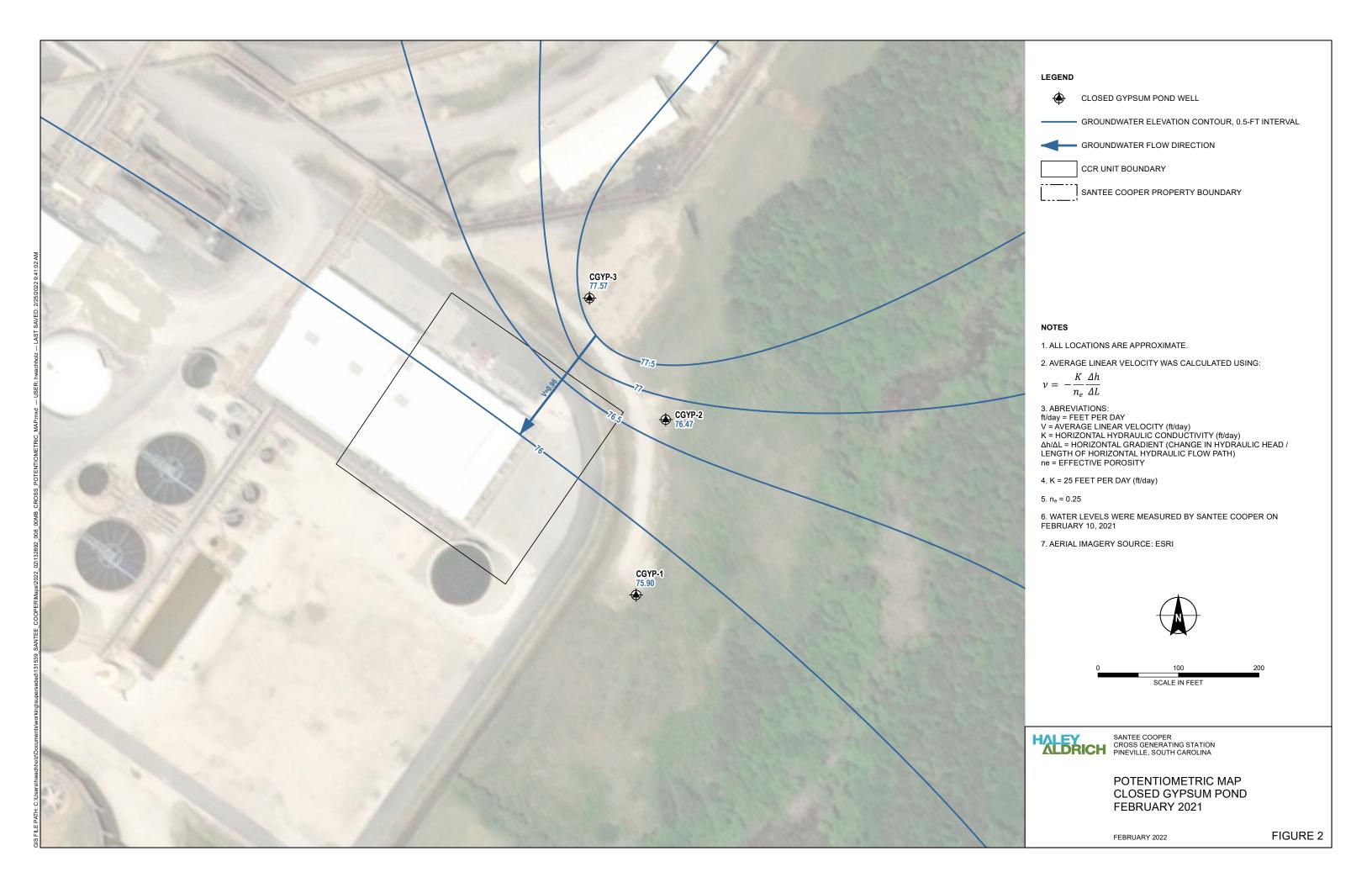
from Electric Utilities. July 26. 40 CFR Part 257. https://www.epa.gov/coalash/coal-ash-rule

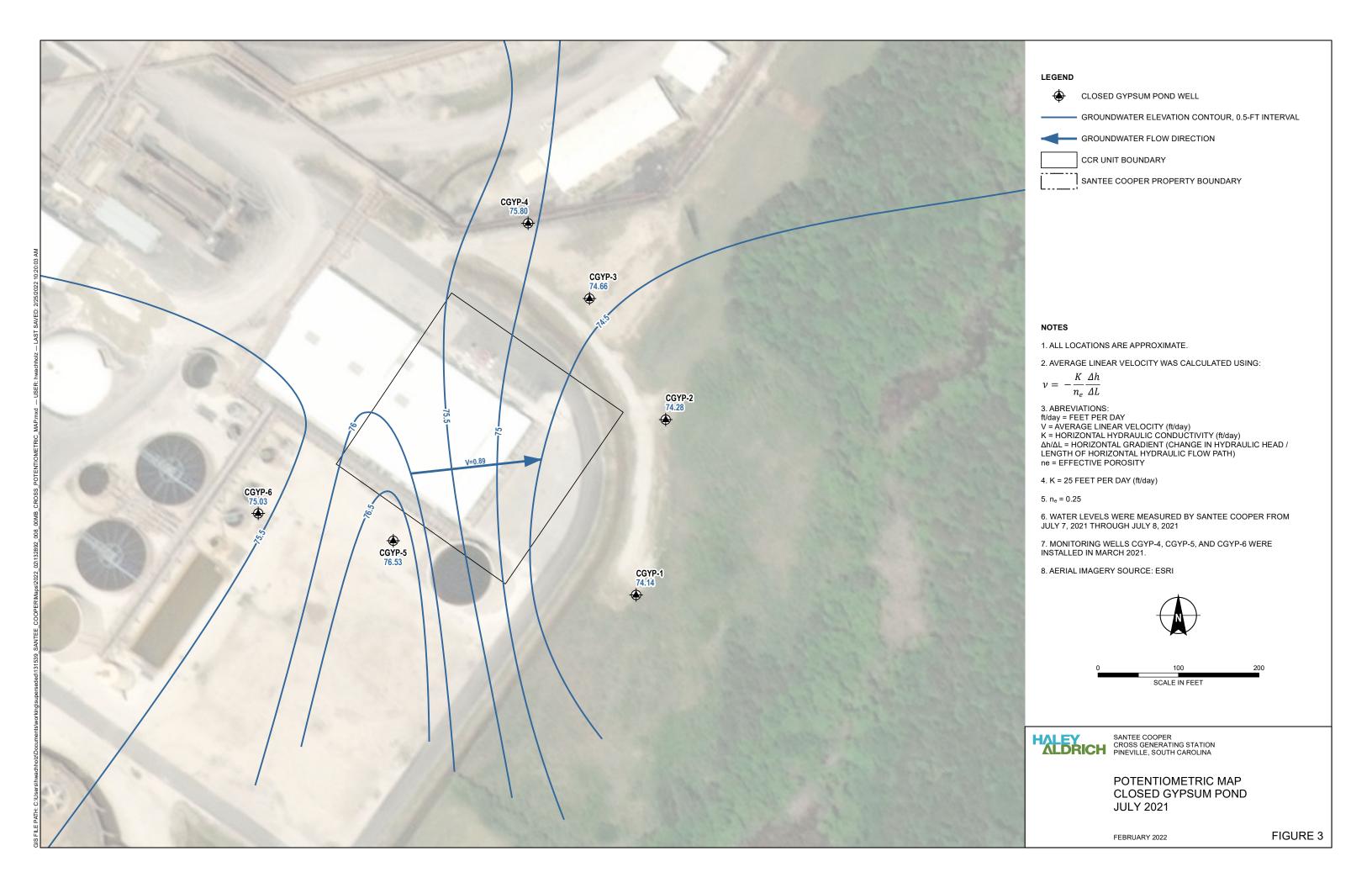
QUALIFIERS:

<: Not detected, value is the laboratory reporting limit













SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AE94861 Location: GW Well CGYP-1 Date: 02/10/2021 Sample Collector: MDG/DEW

Loc. Code CGYP-1 Time: 11:16

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	45.2	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Barium	39.7	ug/L	02/22/2021	SJHATCHE	EPA 6020B
Beryllium	12.7	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Boron	14000	ug/L	02/18/2021	R&C	EPA 6010D
Calcium	353	mg/L	02/19/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Cobalt	58.7	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	02/18/2021	R&C	EPA 7470
Lithium	24	ug/L	02/18/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	02/18/2021	R&C	EPA 6010D
Lead	16.5	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Selenium	16.3	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Radium 226	1.23	pCi/L	02/24/2021	GEL	EPA 903.1 Mod
Radium 228	2.63	pCi/L	03/01/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.86	pCi/L	03/05/2021	GEL	EPA 903.1 Mod
Chloride	791	mg/L	03/05/2021	KCWELLS	EPA 300.0
Fluoride	1.69	mg/L	03/05/2021	KCWELLS	EPA 300.0
Sulfate	613	mg/L	03/05/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2081	mg/L	02/16/2021	KCWELLS	SM 2540C
рН	3.80	SU	02/10/2021	DEW/MDG	
Spec. Cond.	3410	uS	02/10/2021	DEW/MDG	
Dissolved Oxygen	0.600	ppm	02/10/2021	DEW/MDG	
Oxidation Reduction Potential	235	mv	02/10/2021	DEW/MDG	SM2580
Temp	19.81	С	02/10/2021	DEW/MDG	
Turbidity	0	NTU	02/10/2021	DEW/MDG	
Depth	15.99	Feet	02/10/2021	DEW/MDG	
Elevation	75.90	Feet	02/12/2021	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





Sample # AF00629 Location: GW Well CGYP-1 Date: 04/07/2021 Sample Collector: DEW/MDG

Loc. Code CGYP-1 Time: 12:16

Result	Units	Test Date	Analyst	Method
33.6	ug/L	05/07/2021	SJHATCHE	EPA 6020B
44.8	ug/L	05/06/2021	SJHATCHE	EPA 6020B
10.3	ug/L	05/06/2021	SJHATCHE	EPA 6020B
11000	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
276	mg/L	05/06/2021	SJHATCHE	EPA 6020B
< 0.50	ug/L	05/06/2021	SJHATCHE	EPA 6020B
53.6	ug/L	05/07/2021	SJHATCHE	EPA 6020B
<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
20	ug/L	04/21/2021	ROGERSNCALLC	EPA 6010D
<20	ug/L	04/21/2021	ROGERSNCALLC	EPA 6010D
8.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
<10.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
<1.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
1.08	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
2.81	pCi/L	04/20/2021	GEL	EPA 904.0
3.89	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
795	mg/L	06/03/2021	KCWELLS	EPA 300.0
1.31	mg/L	06/03/2021	KCWELLS	EPA 300.0
445	mg/L	06/03/2021	KCWELLS	EPA 300.0
2301	mg/L	04/19/2021	SJBROWN	SM 2540C
4.10	SU	04/07/2021	DEW/MDG	
3200	uS	04/07/2021	DEW/MDG	
0.370	ppm	04/07/2021	DEW/MDG	
219	mv	04/07/2021	DEW/MDG	SM2580
23.58	С	04/07/2021	DEW/MDG	
0	NTU	04/07/2021	DEW/MDG	
16.58	Feet	04/07/2021	DEW/MDG	
75.31	Feet	04/22/2021	DEWEST	
	33.6 44.8 10.3 11000 276 <0.50 53.6 <5.0 <0.20 20 <20 8.0 <5.0 <10.0 <1.0 1.08 2.81 3.89 795 1.31 445 2301 4.10 3200 0.370 219 23.58 0 16.58	33.6	33.6	33.6 ug/L 05/07/2021 SJHATCHE 44.8 ug/L 05/06/2021 SJHATCHE 10.3 ug/L 05/06/2021 SJHATCHE 11000 ug/L 04/16/2021 ROGERSNCALLC 276 mg/L 05/06/2021 SJHATCHE

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF03565 Location: GW Well CGYP-1 Date: 05/13/2021 Sample Collector: MDG/BWM

Loc. Code CGYP-1 Time: 14:39

Analysis Result Units **Test Date** Analyst Method 16.93 Feet 05/14/2021 MDG/BWM Depth Elevation 74.96 Feet 05/17/2021 **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





Sample # AF07267 Location: GW Well CGYP-1 Date: 07/07/2021 Sample Collector: BRT/CWS

Loc. Code CGYP-1 Time: 10:31

-					
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	18.1	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Barium	52.2	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Beryllium	6.1	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Boron	9400	ug/L	07/14/2021	R&C	EPA 6010D
Calcium	218	mg/L	08/03/2021	SJHATCHE	EPA 6020B
Cadmium	< 0.50	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Cobalt	36.2	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	07/16/2021	R&C	EPA 7470
Lithium	14.0	ug/L	07/14/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	07/14/2021	R&C	EPA 6010D
Lead	9.7	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Radium 226	1.17	pCi/L	07/22/2021	GEL	EPA 903.1 Mod
Radium 228	1.61	pCi/L	08/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.77	pCi/L	08/05/2021	GEL	EPA 903.1 Mod
Chloride	728	mg/L	07/09/2021	KCWELLS	EPA 300.0
Fluoride	0.97	mg/L	07/09/2021	KCWELLS	EPA 300.0
Sulfate	377	mg/L	07/09/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1770	mg/L	07/15/2021	SJBROWN	SM 2540C
рН	4.19	SU	07/07/2021	BRT/CWS	
Spec. Cond.	2670	uS	07/07/2021	BRT/CWS	
Dissolved Oxygen	0.770	ppm	07/07/2021	BRT/CWS	
Oxidation Reduction Potential	145	mv	07/07/2021	BRT/CWS	SM2580
Temp	23.16	С	07/07/2021	BRT/CWS	
Turbidity	0.600	NTU	07/07/2021	BRT/CWS	
Depth	17.75	Feet	07/07/2021	BRT/CWS	
Elevation	74.14	Feet	07/14/2021	BRTAYLOR	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AE94862 Location: GW Well CGYP-2 Date: 02/10/2021 Sample Collector: MDG/DEW

Loc. Code CGYP-2 Time: 12:23

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	18.4	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Barium	21.0	ug/L	02/22/2021	SJHATCHE	EPA 6020B
Beryllium	2.5	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Boron	960	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	298	mg/L	02/19/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Cobalt	19.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	02/19/2021	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	19.6	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Radium 226	0.796	pCi/L	02/24/2021	GEL	EPA 903.1 Mod
Radium 228	2.04	pCi/L	03/01/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.83	pCi/L	03/05/2021	GEL	EPA 903.1 Mod
Chloride	79.5	mg/L	02/19/2021	KCWELLS	EPA 300.0
Fluoride	1.3	mg/L	02/19/2021	KCWELLS	EPA 300.0
Sulfate	957	mg/L	02/19/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1538	mg/L	02/16/2021	KCWELLS	SM 2540C
рН	3.77	SU	02/10/2021	DEW/MDG	
Spec. Cond.	1710	uS	02/10/2021	DEW/MDG	
Dissolved Oxygen	0.430	ppm	02/10/2021	DEW/MDG	
Oxidation Reduction Potential	271	mv	02/10/2021	DEW/MDG	SM2580
Temp	19.11	С	02/10/2021	DEW/MDG	
Turbidity	0	NTU	02/10/2021	DEW/MDG	
Depth	8.41	Feet	02/10/2021	DEW/MDG	
Elevation	76.47	Feet	02/12/2021	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





Sample # AE94863 Location: GW Well CGYP-2 Date: 02/10/2021 Sample Collector: MDG/DEW

Loc. Code CGYP-2 Time: 12:28

DI	JP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	17.7	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Barium	21.8	ug/L	02/22/2021	SJHATCHE	EPA 6020B
Beryllium	2.6	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Boron	980	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	267	mg/L	02/19/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Cobalt	19.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	02/19/2021	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	18.9	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Radium 226	0.752	pCi/L	02/24/2021	GEL	EPA 903.1 Mod
Radium 228	1.14	pCi/L	03/01/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.90	pCi/L	03/05/2021	GEL	EPA 903.1 Mod
Chloride	79.4	mg/L	03/05/2021	KCWELLS	EPA 300.0
Fluoride	1.26	mg/L	03/05/2021	KCWELLS	EPA 300.0
Sulfate	1035	mg/L	03/05/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1526	mg/L	02/16/2021	KCWELLS	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





Sample # AF00630 Location: GW Well CGYP-2 Date: 04/07/2021 Sample Collector: DEW/MDG

Loc. Code CGYP-2 Time: 13:16

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	16.9	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Barium	14.5	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Beryllium	3.1	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Boron	850	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	273	mg/L	05/06/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Cobalt	18.3	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	14	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	17.5	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Radium 226	0.272	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.91	pCi/L	04/20/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.18	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	55.87	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Fluoride	1.08	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Sulfate	987	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Total Dissolved Solids	1536	mg/L	04/19/2021	SJBROWN	SM 2540C
рН	4.02	SU	04/07/2021	DEW/MDG	
Spec. Cond.	1650	uS	04/07/2021	DEW/MDG	
Dissolved Oxygen	0.380	ppm	04/07/2021	DEW/MDG	
Oxidation Reduction Potential	247	mv	04/07/2021	DEW/MDG	SM2580
Temp	21.36	С	04/07/2021	DEW/MDG	
Turbidity	0	NTU	04/07/2021	DEW/MDG	
Depth	9.39	Feet	04/07/2021	DEW/MDG	
Elevation	75.49	Feet	04/22/2021	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





Sample # AF00631 Location: GW Well CGYP-2 Date: 04/07/2021 Sample Collector: DEW/MDG

Loc. Code CGYP-2 Time: 13:21

DL	JP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	17.0	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Barium	14.3	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Beryllium	2.9	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Boron	890	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	276	mg/L	05/06/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Cobalt	18.4	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	15	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	17.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Radium 226	0.290	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	4.76	pCi/L	04/20/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.05	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	56.4	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Fluoride	1.04	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Sulfate	986	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Total Dissolved Solids	1670	mg/L	04/19/2021	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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF03566 Location: GW Well CGYP-2

Date: 05/13/2021

Sample Collector: MDG/BWM

Loc. Code CGYP-2 Time: 14:36

Analysis	Result	Units	Test Date	Analyst	Method
Depth	9.80	Feet	05/14/2021	MDG/BWM	
Elevation	75.08	Feet	05/17/2021	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





Sample # AF07268 Location: GW Well CGYP-2 Date: 07/07/2021 Sample Collector: BRT/CWS

Loc. Code CGYP-2 Time: 11:28

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	19.4	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Barium	17.8	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Beryllium	2.8	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Boron	1300	ug/L	07/14/2021	R&C	EPA 6010D
Calcium	253	mg/L	08/03/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Cobalt	20.6	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	07/16/2021	R&C	EPA 7470
Lithium	15.0	ug/L	07/14/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	07/14/2021	R&C	EPA 6010D
Lead	20.8	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Radium 226	0.578	pCi/L	07/22/2021	GEL	EPA 903.1 Mod
Radium 228	1.92	pCi/L	08/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.50	pCi/L	08/05/2021	GEL	EPA 903.1 Mod
Chloride	83.1	mg/L	07/09/2021	KCWELLS	EPA 300.0
Fluoride	0.87	mg/L	07/09/2021	KCWELLS	EPA 300.0
Sulfate	937	mg/L	07/09/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1618	mg/L	07/15/2021	SJBROWN	SM 2540C
рН	3.80	SU	07/07/2021	BRT/CWS	
Spec. Cond.	1530	uS	07/07/2021	BRT/CWS	
Dissolved Oxygen	0.670	ppm	07/07/2021	BRT/CWS	
Oxidation Reduction Potential	241	mv	07/07/2021	BRT/CWS	SM2580
Temp	25.39	С	07/07/2021	BRT/CWS	
Turbidity	0.200	NTU	07/07/2021	BRT/CWS	
Depth	10.60	Feet	07/07/2021	BRT/CWS	
Elevation	74.28	Feet	07/21/2021	BRTAYLOR	

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





Sample # AF07269 Location: GW Well CGYP-2 Date: 07/07/2021 Sample Collector: BRT/CWS

Loc. Code CGYP-2 Time: 11:33

DU	DUP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	18.9	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Barium	17.9	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Beryllium	3.2	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Boron	1300	ug/L	07/14/2021	R&C	EPA 6010D
Calcium	263	mg/L	08/03/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Cobalt	19.6	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	07/16/2021	R&C	EPA 7470
Lithium	14.0	ug/L	07/14/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	07/14/2021	R&C	EPA 6010D
Lead	20.2	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Radium 226	0.762	pCi/L	07/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.31	pCi/L	08/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.07	pCi/L	08/05/2021	GEL	EPA 903.1 Mod
Chloride	81.4	mg/L	07/09/2021	KCWELLS	EPA 300.0
Fluoride	0.87	mg/L	07/09/2021	KCWELLS	EPA 300.0
Sulfate	945	mg/L	07/09/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1615	mg/L	07/15/2021	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





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SANTEE COOPER ANALYTICAL SERVICES **CERTIFICATE OF ANALYSIS** LAB CERTIFICATION #08552

Date: 02/10/2021 AE94864 Location: **GW Well CGYP-3** MDG/DEW Sample # **Sample Collector:**

Loc. Code CGYP-3 Time: 13:38

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	22.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Barium	40.5	ug/L	02/22/2021	SJHATCHE	EPA 6020B
Beryllium	35.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Boron	25000	ug/L	12/30/1999	R&C	EPA 6010D
Calcium	729	mg/L	02/19/2021	SJHATCHE	EPA 6020B
Cadmium	0.78	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Cobalt	151	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	12/30/1999	R&C	EPA 7470
Lithium	110	ug/L	12/30/1999	R&C	EPA 6010D
Molybdenum	<20	ug/L	12/30/1999	R&C	EPA 6010D
Lead	92.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	02/19/2021	SJHATCHE	EPA 6020B
Radium 226	1.05	pCi/L	02/24/2021	GEL	EPA 903.1 Mod
Radium 228	3.63	pCi/L	03/01/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.69	pCi/L	03/05/2021	GEL	EPA 903.1 Mod
Chloride	1460	mg/L	02/19/2021	KCWELLS	EPA 300.0
Fluoride	6.22	mg/L	02/19/2021	KCWELLS	EPA 300.0
Sulfate	1010	mg/L	02/19/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	4090	mg/L	02/16/2021	KCWELLS	SM 2540C
рН	3.50	SU	02/10/2021	DEW/MDG	
Spec. Cond.	5700	uS	02/10/2021	DEW/MDG	
Dissolved Oxygen	0.510	ppm	02/10/2021	DEW/MDG	
Oxidation Reduction Potential	328	mv	02/10/2021	DEW/MDG	SM2580
Temp	19.17	С	02/10/2021	DEW/MDG	
Turbidity	0	NTU	02/10/2021	DEW/MDG	
Depth	6.38	Feet	02/10/2021	DEW/MDG	
Elevation	77.57	Feet	02/12/2021	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





Sample # AF00632 Location: GW Well CGYP-3 Date: 04/07/2021 Sample Collector: DEW/MDG

Loc. Code CGYP-3 Time: 14:20

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	19.8	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Barium	38.4	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Beryllium	46.5	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Boron	23000	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	700	mg/L	05/06/2021	SJHATCHE	EPA 6020B
Cadmium	0.53	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Cobalt	143	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Chromium	6.1	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Mercury	0.21	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	94	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	24.8	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Radium 226	0.433	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	7.50	pCi/L	04/26/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	7.93	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	1405	mg/L	06/03/2021	KCWELLS	EPA 300.0
Fluoride	3.32	mg/L	06/03/2021	KCWELLS	EPA 300.0
Sulfate	972	mg/L	06/03/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	4958	mg/L	04/19/2021	SJBROWN	SM 2540C
рН	3.73	SU	04/07/2021	DEW/MDG	
Spec. Cond.	5280	uS	04/07/2021	DEW/MDG	
Dissolved Oxygen	0.320	ppm	04/07/2021	DEW/MDG	
Oxidation Reduction Potential	240	mv	04/07/2021	DEW/MDG	SM2580
Temp	23.64	С	04/07/2021	DEW/MDG	
Turbidity	0	NTU	04/07/2021	DEW/MDG	
Depth	8.27	Feet	04/07/2021	DEW/MDG	
Elevation	75.68	Feet	04/22/2021	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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF03567

Location: GW Well CGYP-3

Date: 05/13/2021

Sample Collector: MDG/BWM

Loc. Code

CGYP-3

Time: 14:39

Analysis	Result	Units	Test Date	Analyst	Method
Depth	8.57	Feet	05/14/2021	MDG/BWM	
Elevation	75.38	Feet	05/17/2021	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





Sample # AF07270 Location: GW Well CGYP-3 Date: 07/07/2021 Sample Collector: BRT/CWS

Loc. Code CGYP-3 Time: 13:38

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	18.3	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Barium	37.8	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Beryllium	26.9	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Boron	17000	ug/L	07/14/2021	R&C	EPA 6010D
Calcium	495	mg/L	08/03/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Cobalt	96.7	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Chromium	7.9	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	07/16/2021	R&C	EPA 7470
Lithium	56.0	ug/L	07/14/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	07/14/2021	R&C	EPA 6010D
Lead	29.7	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Radium 226	1.24	pCi/L	07/22/2021	GEL	EPA 903.1 Mod
Radium 228	3.79	pCi/L	08/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.03	pCi/L	08/05/2021	GEL	EPA 903.1 Mod
Chloride	950	mg/L	07/16/2021	KCWELLS	EPA 300.0
Fluoride	1.88	mg/L	07/09/2021	KCWELLS	EPA 300.0
Sulfate	993	mg/L	07/16/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	3291	mg/L	07/15/2021	SJBROWN	SM 2540C
рН	3.56	SU	07/07/2021	BRT/CWS	
Spec. Cond.	4090	uS	07/07/2021	BRT/CWS	
Dissolved Oxygen	0.720	ppm	07/07/2021	BRT/CWS	
Oxidation Reduction Potential	225	mv	07/07/2021	BRT/CWS	SM2580
Temp	24.83	С	07/07/2021	BRT/CWS	
Turbidity	0.300	NTU	07/07/2021	BRT/CWS	
Depth	9.29	Feet	07/07/2021	BRT/CWS	
Elevation	74.66	Feet	07/14/2021	BRTAYLOR	

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





SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF00633 Location: GW Well CGYP-4 Date: 04/07/2021 Sample Collector: DEW/MDG

Loc. Code CGYP-4 Time: 11:06

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	10.3	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Barium	45.4	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Beryllium	17.4	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Boron	7600	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	348	mg/L	05/06/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Cobalt	53.2	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	58	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	11.3	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Radium 226	0.713	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	5.66	pCi/L	04/26/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	6.37	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	733	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Fluoride	3.19	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Sulfate	602	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Total Dissolved Solids	2178	mg/L	04/19/2021	SJBROWN	SM 2540C
рН	3.78	SU	04/07/2021	DEW/MDG	
Spec. Cond.	3050	uS	04/07/2021	DEW/MDG	
Dissolved Oxygen	0.540	ppm	04/07/2021	DEW/MDG	
Oxidation Reduction Potential	246	mv	04/07/2021	DEW/MDG	SM2580
Temp	22.48	С	04/07/2021	DEW/MDG	
Turbidity	0	NTU	04/07/2021	DEW/MDG	
Depth	7.56	Feet	04/07/2021	DEW/MDG	
Elevation	75.93	Feet	04/22/2021	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





Sample # AF03568 Location: GW Well CGYP-4 Date: 05/13/2021 Sample Collector: MDG/BWM

Loc. Code CGYP-4 Time: 14:39

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	10.5	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Barium	37.5	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Beryllium	16.4	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Boron	8000	ug/L	05/25/2021	R&C	EPA 6010D
Calcium	360	mg/L	05/19/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Cobalt	49.8	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	05/27/2021	R&C	EPA 7470
Lithium	58.0	ug/L	05/25/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	05/25/2021	R&C	EPA 6010D
Lead	12.2	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Radium 226	1.02	pCi/L	06/02/2021	GEL	EPA 903.1 Mod
Radium 228	4.82	pCi/L	06/04/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.84	pCi/L	06/11/2021	GEL	EPA 903.1 Mod
Chloride	683	mg/L	05/18/2021	KCWELLS	EPA 300.0
Fluoride	2.82	mg/L	05/18/2021	KCWELLS	EPA 300.0
Sulfate	598	mg/L	05/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2078	mg/L	05/21/2021	KCWELLS	SM 2540C
рН	3.88	SU	05/14/2021	MDG/BWM	
Spec. Cond.	2990	uS	05/14/2021	MDG/BWM	
Dissolved Oxygen	0.640	ppm	05/14/2021	MDG/BWM	
Oxidation Reduction Potential	122	mv	05/14/2021	MDG/BWM	SM2580
Temp	22.18	С	05/14/2021	MDG/BWM	
Turbidity	0	NTU	05/14/2021	MDG/BWM	
Depth	7.65	Feet	05/14/2021	MDG/BWM	
Elevation	75.84	Feet	05/17/2021	MDGOINGS	
Liovation	70.04	. 001	00/11/2021		

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





Sample # AF03569 Location: GW Well CGYP-4 Date: 05/13/2021 Sample Collector: MDG/BWM

Loc. Code CGYP-4 Time: 14:44

DI	JP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	10.9	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Barium	38.4	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Beryllium	16.1	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Boron	8000	ug/L	05/25/2021	R&C	EPA 6010D
Calcium	343	mg/L	05/19/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Cobalt	52.1	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	05/27/2021	R&C	EPA 7470
Lithium	59.0	ug/L	05/25/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	05/25/2021	R&C	EPA 6010D
Lead	12.8	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B
Radium 226	1.05	pCi/L	06/02/2021	GEL	EPA 903.1 Mod
Radium 228	3.55	pCi/L	06/04/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.60	pCi/L	06/11/2021	GEL	EPA 903.1 Mod
Chloride	719	mg/L	05/18/2021	719	EPA 300.0
Fluoride	1.90	mg/L	05/18/2021	KCWELLS	EPA 300.0
Sulfate	632	mg/L	05/18/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2195	mg/L	05/21/2021	KCWELLS	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





Sample # AF07271 Location: GW Well CGYP-4 Date: 07/08/2021 Sample Collector: MDG/BRT

Loc. Code CGYP-4 Time: 10:26

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.3	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Barium	39.5	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Beryllium	17.9	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Boron	7700	ug/L	07/14/2021	R&C	EPA 6010D
Calcium	324	mg/L	08/03/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Cobalt	49.4	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	07/16/2021	R&C	EPA 7470
Lithium	58.0	ug/L	07/14/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	07/14/2021	R&C	EPA 6010D
Lead	12.6	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Radium 226	1.05	pCi/L	07/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.51	pCi/L	08/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.56	pCi/L	08/05/2021	GEL	EPA 903.1 Mod
Chloride	670	mg/L	07/09/2021	KCWELLS	EPA 300.0
Fluoride	1.85	mg/L	07/09/2021	KCWELLS	EPA 300.0
Sulfate	621	mg/L	07/09/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2168	mg/L	07/15/2021	SJBROWN	SM 2540C
рН	3.65	SU	07/08/2021	MDG/BRT	
Spec. Cond.	2940	uS	07/08/2021	MDG/BRT	
Dissolved Oxygen	1.01	ppm	07/08/2021	MDG/BRT	
Oxidation Reduction Potential	141	mv	07/08/2021	MDG/BRT	SM2580
Temp	23.08	С	07/08/2021	MDG/BRT	
Turbidity	0.600	NTU	07/08/2021	MDG/BRT	
Depth	7.69	Feet	07/08/2021	MDG/BRT	
Elevation	75.80	Feet	07/14/2021	BRTAYLOR	

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





Sample # AF13773 Location: GW Well CGYP-4 Date: 09/01/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 09:04

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.5	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Barium	36.4	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Beryllium	15.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Boron	8000	ug/L	09/10/2021	R&C	EPA 6010D
Calcium	319	mg/L	09/09/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Cobalt	48.7	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	09/16/2021	R&C	EPA 7470
Lithium	64.0	ug/L	09/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	09/10/2021	R&C	EPA 6010D
Lead	14.6	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Radium 226	0.669	pCi/L	09/29/2021	GEL	EPA 903.1 Mod
Radium 228	3.97	pCi/L	09/29/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.64	pCi/L	10/01/2021	GEL	EPA 903.1 Mod
Chloride	617	mg/L	09/08/2021	KCWELLS	EPA 300.0
Fluoride	1.79	mg/L	09/08/2021	KCWELLS	EPA 300.0
Sulfate	605	mg/L	09/08/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2038	mg/L	09/09/2021	SJBROWN	SM 2540C
рН	3.65	SU	09/01/2021	DEW/ML	
Spec. Cond.	2860	uS	09/01/2021	DEW/ML	
Dissolved Oxygen	0.870	ppm	09/01/2021	DEW/ML	
Oxidation Reduction Potential	202	mv	09/01/2021	DEW/ML	SM2580
Temp	24.12	С	09/01/2021	DEW/ML	
Turbidity	3.60	NTU	09/01/2021	DEW/ML	
Depth	7.33	Feet	09/01/2021	DEW/ML	
Elevation	76.16	Feet	09/02/2021	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





Sample # AF13774 Location: GW Well CGYP-4 Date: 09/01/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 09:09

DU	JP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.6	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Barium	35.9	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Beryllium	14.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Boron	7800	ug/L	09/10/2021	R&C	EPA 6010D
Calcium	318	mg/L	09/09/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Cobalt	48.4	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	09/16/2021	R&C	EPA 7470
Lithium	63.0	ug/L	09/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	09/10/2021	R&C	EPA 6010D
Lead	14.5	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Radium 226	0.773	pCi/L	09/29/2021	GEL	EPA 903.1 Mod
Radium 228	2.79	pCi/L	09/29/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.57	pCi/L	10/01/2021	GEL	EPA 903.1 Mod
Chloride	608	mg/L	09/08/2021	KCWELLS	EPA 300.0
Fluoride	1.79	mg/L	09/08/2021	KCWELLS	EPA 300.0
Sulfate	593	mg/L	09/08/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2004	mg/L	09/09/2021	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





Sample # AF15787 Location: GW Well CGYP-4 Date: 09/27/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 09:38

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.8	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Barium	37.1	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Beryllium	15.6	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Boron	7800	ug/L	10/04/2021	R&C	EPA 6010D
Calcium	325	mg/L	10/12/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Cobalt	47.8	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	10/06/2021	R&C	EPA 7470
Lithium	67.0	ug/L	10/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	10/04/2021	R&C	EPA 6010D
Lead	14.7	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Radium 226	1.00	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Radium 228	4.29	pCi/L	10/13/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.29	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Chloride	574	mg/L	10/22/2021	KCWELLS	EPA 300.0
Fluoride	1.63	mg/L	10/25/2021	KCWELLS	EPA 300.0
Sulfate	584	mg/L	10/22/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1749	mg/L	10/04/2021	KCWELLS	SM 2540C
рН	3.65	SU	09/27/2021	DEW/ML	
Spec. Cond.	2800	uS	09/27/2021	DEW/ML	
Dissolved Oxygen	0.650	ppm	09/27/2021	DEW/ML	
Oxidation Reduction Potential	212	mv	09/27/2021	DEW/ML	SM2580
Temp	24.49	С	09/27/2021	DEW/ML	
Turbidity	0	NTU	09/27/2021	DEW/ML	
Depth	7.04	Feet	09/27/2021	DEW/ML	
Elevation	76.45	Feet	10/01/2021	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





Sample # AF15788 Location: GW Well CGYP-4 Date: 09/27/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 09:43

DU	JP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.2	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Barium	36.9	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Beryllium	15.1	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Boron	8200	ug/L	10/04/2021	R&C	EPA 6010D
Calcium	334	mg/L	10/12/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Cobalt	46.7	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	10/06/2021	R&C	EPA 7470
Lithium	67.0	ug/L	10/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	10/04/2021	R&C	EPA 6010D
Lead	14.1	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Radium 226	0.670	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Radium 228	3.87	pCi/L	10/13/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.54	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Chloride	683	mg/L	09/30/2021	KCWELLS	EPA 300.0
Fluoride	1.21	mg/L	09/30/2021	KCWELLS	EPA 300.0
Sulfate	705	mg/L	09/30/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1846	mg/L	10/04/2021	KCWELLS	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





Sample # AF18534 Location: GW Well CGYP-4 Date: 10/26/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 10:00

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	10.4	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Barium	33.6	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Beryllium	15.2	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Boron	6800.0	ug/L	11/04/2021	R&C	EPA 6010D
Calcium	304	mg/L	11/02/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Cobalt	46.3	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/09/2021	R&C	EPA 7470
Lithium	53.0	ug/L	11/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/04/2021	R&C	EPA 6010D
Lead	14.5	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Radium 226	3.94	pCi/L	11/05/2021	GEL	EPA 903.1 Mod
Radium 228	1.61	pCi/L	11/04/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.56	pCi/L	11/10/2021	GEL	EPA 903.1 Mod
Chloride	553	mg/L	11/10/2021	KCWELLS	EPA 300.0
Fluoride	0.83	mg/L	11/10/2021	KCWELLS	EPA 300.0
Sulfate	611	mg/L	11/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1614	mg/L	11/02/2021	KCWELLS	SM 2540C
рН	3.66	SU	10/26/2021	DEW/ML	
Spec. Cond.	2660	uS	10/26/2021	DEW/ML	
Dissolved Oxygen	0.400	ppm	10/26/2021	DEW/ML	
Oxidation Reduction Potential	238	mv	10/26/2021	DEW/ML	SM2580
Temp	23.95	С	10/26/2021	DEW/ML	
Turbidity	0	NTU	10/26/2021	DEW/ML	
Depth	8.15	Feet	10/26/2021	DEW/ML	
Elevation	75.34	Feet	10/28/2021	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





Sample # AF18535 Location: GW Well CGYP-4 Date: 10/26/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 10:05

DI	nb				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	10.7	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Barium	34.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Beryllium	15.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Boron	6900.0	ug/L	11/04/2021	R&C	EPA 6010D
Calcium	307	mg/L	11/02/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Cobalt	48.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/09/2021	R&C	EPA 7470
Lithium	57.0	ug/L	11/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/04/2021	R&C	EPA 6010D
Lead	15.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Radium 226	4.50	pCi/L	11/05/2021	GEL	EPA 903.1 Mod
Radium 228	3.92	pCi/L	11/04/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	8.42	pCi/L	11/10/2021	GEL	EPA 903.1 Mod
Chloride	554	mg/L	11/10/2021	KCWELLS	EPA 300.0
Fluoride	0.80	mg/L	11/10/2021	KCWELLS	EPA 300.0
Sulfate	612	mg/L	11/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1760	mg/L	11/02/2021	KCWELLS	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





Sample # AF20415 Location: GW Well CGYP-4 Date: 11/17/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 10:18

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.2	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Barium	33.3	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Beryllium	14.9	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Boron	7100.0	ug/L	11/24/2021	R&C	EPA 6010D
Calcium	310	mg/L	12/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Cobalt	46.1	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/29/2021	R&C	EPA 7470
Lithium	52.0	ug/L	11/24/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/30/2021	R&C	EPA 6010D
Lead	14.7	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Radium 226	1.18	pCi/L	12/03/2021	GEL	EPA 903.1 Mod
Radium 228	3.72	pCi/L	12/27/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	4.90	pCi/L	12/28/2021	GEL	EPA 903.1 Mod
Chloride	537	mg/L	12/01/2021	KCWELLS	EPA 300.0
Fluoride	1.53	mg/L	12/01/2021	KCWELLS	EPA 300.0
Sulfate	600	mg/L	12/01/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1676	mg/L	11/19/2021	KCWELLS	SM 2540C
рН	3.54	SU	11/17/2021	DEW/ML	
Spec. Cond.	2590	uS	11/17/2021	DEW/ML	
Dissolved Oxygen	0.470	ppm	11/17/2021	DEW/ML	
Oxidation Reduction Potential	288	mv	11/17/2021	DEW/ML	SM2580
Temp	23.99	С	11/17/2021	DEW/ML	
Turbidity	0	NTU	11/17/2021	DEW/ML	
Depth	8.60	Feet	11/17/2021	DEW/ML	
Elevation	74.89	Feet	11/19/2021	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





Sample # AF20416 Location: GW Well CGYP-4 Date: 11/17/2021 Sample Collector: DEW/ML

Loc. Code CGYP-4 Time: 10:23

	DUP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	11.6	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Barium	34.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Beryllium	14.0	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Boron	7200.0	ug/L	11/24/2021	R&C	EPA 6010D
Calcium	304	mg/L	12/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Cobalt	45.1	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/29/2021	R&C	EPA 7470
Lithium	53.0	ug/L	11/24/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/30/2021	R&C	EPA 6010D
Lead	14.8	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Radium 226	1.80	pCi/L	12/03/2021	GEL	EPA 903.1 Mod
Radium 228	0.760	pCi/L	12/27/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.56	pCi/L	12/28/2021	GEL	EPA 903.1 Mod
Chloride	545	mg/L	12/01/2021	KCWELLS	EPA 300.0
Fluoride	1.45	mg/L	12/01/2021	KCWELLS	EPA 300.0
Sulfate	607	mg/L	12/01/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1729	mg/L	11/19/2021	KCWELLS	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





Sample # AF21736 Location: GW Well CGYP-4 Date: 12/06/2021 Sample Collector: TW ML

Loc. Code CGYP-4 Time: 09:54

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	5.8	ug/L	01/19/2022	PACE	EPA 6020B
Barium	33	ug/L	01/19/2022	PACE	EPA 6020B
Beryllium	19	ug/L	01/19/2022	PACE	EPA 6020B
Boron	7500	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Calcium	310	mg/L	01/19/2022	PACE	EPA 6020B
Cadmium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Cobalt	43	ug/L	01/19/2022	PACE	EPA 6020B
Chromium	<5.0	ug/L	01/19/2022	PACE	EPA 6020B
Mercury	<0.20	ug/L	12/16/2021	ROGERSNCALLC	EPA 7470
Lithium	76	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	12/17/2021	ROGERSNCALLC	EPA 6010D
Lead	12	ug/L	01/19/2022	PACE	EPA 6020B
Antimony	<2.0	ug/L	01/19/2022	PACE	EPA 6020B
Selenium	15	ug/L	01/19/2022	PACE	EPA 6020B
Thallium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Radium 226	2.18	pCi/L	01/04/2022	GEL	EPA 903.1 Mod
Radium 228	2.86	pCi/L	01/05/2022	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.03	pCi/L	01/05/2022	GEL	EPA 903.1 Mod
Chloride	526	mg/L	12/08/2021	KCWELLS	EPA 300.0
Fluoride	1.48	mg/L	12/08/2021	KCWELLS	EPA 300.0
Sulfate	601	mg/L	12/08/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1671	mg/L	12/13/2021	KCWELLS	SM 2540C
рН	3.41	SU	12/06/2021	DEW/ML	
Spec. Cond.	2600	uS	12/06/2021	DEW/ML	
Dissolved Oxygen	0.860	ppm	12/06/2021	DEW/ML	
Oxidation Reduction Potential	280	mv	12/06/2021	DEW/ML	SM2580
Temp	22.60	С	12/06/2021	DEW/ML	
Turbidity	0	NTU	12/06/2021	DEW/ML	
Depth	8.80	Feet	12/06/2021	DEW/ML	
Elevation	74.69	Feet	12/08/2021	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





Sample # AF21737 Location: GW Well CGYP-4 Date: 12/06/2021 Sample Collector: TW ML

Loc. Code CGYP-4 Time: 09:59

DL	JP				
Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	6.0	ug/L	01/19/2022	PACE	EPA 6020B
Barium	32	ug/L	01/19/2022	PACE	EPA 6020B
Beryllium	19	ug/L	01/19/2022	PACE	EPA 6020B
Boron	7100	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Calcium	300	mg/L	01/19/2022	PACE	EPA 6020B
Cadmium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Cobalt	41	ug/L	01/19/2022	PACE	EPA 6020B
Chromium	<5.0	ug/L	01/19/2022	PACE	EPA 6020B
Mercury	<0.20	ug/L	12/16/2021	ROGERSNCALLC	EPA 7470
Lithium	75	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	12/17/2021	ROGERSNCALLC	EPA 6010D
Lead	12	ug/L	01/19/2022	PACE	EPA 6020B
Antimony	<2.0	ug/L	01/19/2022	PACE	EPA 6020B
Selenium	15	ug/L	01/19/2022	PACE	EPA 6020B
Thallium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Radium 226	0.300	pCi/L	01/04/2022	GEL	EPA 903.1 Mod
Radium 228	3.00	pCi/L	01/05/2022	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.30	pCi/L	01/05/2022	GEL	EPA 903.1 Mod
Chloride	525	mg/L	12/08/2021	KCWELLS	EPA 300.0
Fluoride	1.41	mg/L	12/08/2021	KCWELLS	EPA 300.0
Sulfate	600	mg/L	12/08/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1746	mg/L	12/13/2021	KCWELLS	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





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SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS

LAB CERTIFICATION #08552

Sample # AF00634 Location: GW Well CGYP-5 Date: 04/07/2021 Sample Collector: DEW/MDG

Loc. Code CGYP-5 Time: 15:09

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Barium	51.9	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Beryllium	6.5	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Boron	3100	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	195	mg/L	05/06/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Cobalt	44.8	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	60	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	1.2	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Radium 226	0.506	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.33	pCi/L	04/20/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.84	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	231	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Fluoride	0.31	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Sulfate	314	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Total Dissolved Solids	1188	mg/L	04/19/2021	SJBROWN	SM 2540C
рН	5.36	SU	04/07/2021	DEW/MDG	
Spec. Cond.	1380	uS	04/07/2021	DEW/MDG	
Dissolved Oxygen	0.390	ppm	04/07/2021	DEW/MDG	
Oxidation Reduction Potential	172	mv	04/07/2021	DEW/MDG	SM2580
Temp	22.32	С	04/07/2021	DEW/MDG	
Turbidity	1.30	NTU	04/07/2021	DEW/MDG	
Depth	7.68	Feet	04/07/2021	DEW/MDG	
Elevation	76.44	Feet	04/22/2021	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





Sample # AF03570 Location: GW Well CGYP-5 Date: 05/13/2021 Sample Collector: MDG/BWM

Loc. Code CGYP-5 Time: 16:00

Analysis	Result	Units	Test Date	Analyst	Method	
Arsenic	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Barium	39.9	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Beryllium	8.3	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Boron	2900	ug/L	05/25/2021	R&C	EPA 6010D	
Calcium	195	mg/L	05/19/2021	SJHATCHE	EPA 6020B	
Cadmium	<0.50	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Cobalt	44.3	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Chromium	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Mercury	<0.2	ug/L	05/27/2021	R&C	EPA 7470	
Lithium	59.0	ug/L	05/25/2021	R&C	EPA 6010D	
Molybdenum	<10	ug/L	05/25/2021	R&C	EPA 6010D	
Lead	1.8	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Antimony	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Selenium	<10.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Thallium	<1.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Radium 226	0.915	pCi/L	06/02/2021	GEL	EPA 903.1 Mod	
Radium 228	0.581	pCi/L	06/04/2021	GEL	EPA 904.0	
Radium 226/228 Combined Calculation	1.50	pCi/L	06/11/2021	GEL	EPA 903.1 Mod	
Chloride	200	mg/L	05/18/2021	KCWELLS	EPA 300.0	
Fluoride	0.37	mg/L	05/18/2021	KCWELLS	EPA 300.0	
Sulfate	318	mg/L	05/18/2021	KCWELLS	EPA 300.0	
Total Dissolved Solids	1182	mg/L	05/21/2021	KCWELLS	SM 2540C	
рН	5.32	SU	05/14/2021	MDG/BWM		
Spec. Cond.	1270	uS	05/14/2021	MDG/BWM		
Dissolved Oxygen	0.640	ppm	05/14/2021	MDG/BWM		
Oxidation Reduction Potential	151	mv	05/14/2021	MDG/BWM	SM2580	
Temp	21.86	С	05/14/2021	MDG/BWM		
Turbidity	0	NTU	05/14/2021	MDG/BWM		
Depth	8.76	Feet	05/14/2021	MDG/BWM		
Elevation	75.36	Feet	05/17/2021	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





Sample # AF07272 Location: GW Well CGYP-5 Date: 07/08/2021 Sample Collector: MDG/BRT

Loc. Code CGYP-5 Time: 11:24

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Barium	39.4	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Beryllium	8.7	ug/L	08/04/2021	SJHATCHE	EPA 6020B
Boron	2900	ug/L	07/14/2021	R&C	EPA 6010D
Calcium	186	mg/L	08/03/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Cobalt	44.7	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	07/16/2021	R&C	EPA 7470
Lithium	58.0	ug/L	07/14/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	07/14/2021	R&C	EPA 6010D
Lead	2.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B
Radium 226	0.340	pCi/L	07/22/2021	GEL	EPA 903.1 Mod
Radium 228	0.366	pCi/L	08/03/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	0.706	pCi/L	08/05/2021	GEL	EPA 903.1 Mod
Chloride	210	mg/L	07/09/2021	KCWELLS	EPA 300.0
Fluoride	0.32	mg/L	07/09/2021	KCWELLS	EPA 300.0
Sulfate	322	mg/L	07/09/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1094	mg/L	07/15/2021	SJBROWN	SM 2540C
рН	4.99	SU	07/08/2021	MDG/BRT	
Spec. Cond.	1260	uS	07/08/2021	MDG/BRT	
Dissolved Oxygen	0.460	ppm	07/08/2021	MDG/BRT	
Oxidation Reduction Potential	108	mv	07/08/2021	MDG/BRT	SM2580
Temp	24.29	С	07/08/2021	MDG/BRT	
Turbidity	0	NTU	07/08/2021	MDG/BRT	
Depth	7.59	Feet	07/08/2021	MDG/BRT	
Elevation	76.53	Feet	07/14/2021	BRTAYLOR	

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





Sample # AF13775 Location: GW Well CGYP-5 Date: 08/31/2021 Sample Collector: DEW/ML

Loc. Code CGYP-5 Time: 10:01

Analysis	Result	Units	Test Date	Analyst	Method	
Arsenic	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Barium	47.8	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Beryllium	6.8	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Boron	3200	ug/L	09/10/2021	R&C	EPA 6010D	
Calcium	208	mg/L	09/09/2021	SJHATCHE	EPA 6020B	
Cadmium	<0.50	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Cobalt	48.9	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Chromium	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Mercury	<0.20	ug/L	09/16/2021	R&C	EPA 7470	
Lithium	62.0	ug/L	09/10/2021	R&C	EPA 6010D	
Molybdenum	<10	ug/L	09/10/2021	R&C	EPA 6010D	
Lead	1.5	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Antimony	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Selenium	<10.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Thallium	<1.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B	
Radium 226	0.560	pCi/L	09/29/2021	GEL	EPA 903.1 Mod	
Radium 228	1.29	pCi/L	09/29/2021	GEL	EPA 904.0	
Radium 226/228 Combined Calculation	1.85	pCi/L	10/01/2021	GEL	EPA 903.1 Mod	
Chloride	241	mg/L	09/08/2021	KCWELLS	EPA 300.0	
Fluoride	0.35	mg/L	09/08/2021	KCWELLS	EPA 300.0	
Sulfate	310	mg/L	09/08/2021	KCWELLS	EPA 300.0	
Total Dissolved Solids	1290	mg/L	09/09/2021	SJBROWN	SM 2540C	
рН	5.17	SU	08/31/2021	DEW/ML		
Spec. Cond.	1420	uS	08/31/2021	DEW/ML		
Dissolved Oxygen	0.450	ppm	08/31/2021	DEW/ML		
Oxidation Reduction Potential	92.0	mv	08/31/2021	DEW/ML	SM2580	
Temp	25.44	С	08/31/2021	DEW/ML		
Turbidity	1.20	NTU	08/31/2021	DEW/ML		
Depth	7.43	Feet	08/31/2021	DEW/ML		
Elevation	76.69	Feet	09/02/2021	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





Sample # AF15789 Location: GW Well CGYP-5 Date: 09/27/2021 Sample Collector: DEW/ML

Loc. Code CGYP-5 Time: 11:17

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Barium	91.9	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Beryllium	10.5	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Boron	5000	ug/L	10/04/2021	R&C	EPA 6010D
Calcium	225	mg/L	10/12/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Cobalt	63.2	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	10/06/2021	R&C	EPA 7470
Lithium	84.0	ug/L	10/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	10/04/2021	R&C	EPA 6010D
Lead	1.8	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Radium 226	0.810	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Radium 228	1.95	pCi/L	10/13/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.76	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Chloride	277	mg/L	09/30/2021	KCWELLS	EPA 300.0
Fluoride	0.25	mg/L	09/30/2021	KCWELLS	EPA 300.0
Sulfate	342	mg/L	09/30/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1311	mg/L	10/04/2021	KCWELLS	SM 2540C
рН	4.92	SU	09/27/2021	DEW/ML	
Spec. Cond.	1500	uS	09/27/2021	DEW/ML	
Dissolved Oxygen	0.500	ppm	09/27/2021	DEW/ML	
Oxidation Reduction Potential	163	mv	09/27/2021	DEW/ML	SM2580
Temp	25.73	С	09/27/2021	DEW/ML	
Turbidity	0	NTU	09/27/2021	DEW/ML	
Depth	7.79	Feet	09/27/2021	DEW/ML	
Elevation	76.33	Feet	10/01/2021	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





Sample # AF18536 Location: GW Well CGYP-5 Date: 10/26/2021 Sample Collector: DEW/ML

Loc. Code CGYP-5 Time: 11:55

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Barium	107	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Beryllium	10.6	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Boron	4500.0	ug/L	11/04/2021	R&C	EPA 6010D
Calcium	225	mg/L	11/02/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Cobalt	70.6	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/09/2021	R&C	EPA 7470
Lithium	76.0	ug/L	11/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/04/2021	R&C	EPA 6010D
Lead	1.5	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Radium 226	4.68	pCi/L	11/05/2021	GEL	EPA 903.1 Mod
Radium 228	2.39	pCi/L	11/04/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	7.07	pCi/L	11/10/2021	GEL	EPA 903.1 Mod
Chloride	344	mg/L	11/10/2021	KCWELLS	EPA 300.0
Fluoride	0.21	mg/L	11/10/2021	KCWELLS	EPA 300.0
Sulfate	397	mg/L	11/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1221	mg/L	11/02/2021	KCWELLS	SM 2540C
рН	4.93	SU	10/26/2021	DEW/ML	
Spec. Cond.	1540	uS	10/26/2021	DEW/ML	
Dissolved Oxygen	0.360	ppm	10/26/2021	DEW/ML	
Oxidation Reduction Potential	177	mv	10/26/2021	DEW/ML	SM2580
Temp	23.94	С	10/26/2021	DEW/ML	
Turbidity	0	NTU	10/26/2021	DEW/ML	
Depth	8.13	Feet	10/26/2021	DEW/ML	
Elevation	75.99	Feet	10/28/2021	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





Sample # AF20417 Location: GW Well CGYP-5 Date: 11/17/2021 Sample Collector: DEW/ML

Loc. Code CGYP-5 Time: 11:51

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Barium	117	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Beryllium	11.5	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Boron	4400.0	ug/L	11/24/2021	R&C	EPA 6010D
Calcium	227	mg/L	12/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Cobalt	68.3	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/29/2021	R&C	EPA 7470
Lithium	77.0	ug/L	11/24/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/30/2021	R&C	EPA 6010D
Lead	2.3	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Radium 226	1.31	pCi/L	12/03/2021	GEL	EPA 903.1 Mod
Radium 228	0.280	pCi/L	12/27/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	1.59	pCi/L	12/28/2021	GEL	EPA 903.1 Mod
Chloride	312	mg/L	12/01/2021	KCWELLS	EPA 300.0
Fluoride	0.35	mg/L	12/01/2021	KCWELLS	EPA 300.0
Sulfate	369	mg/L	12/01/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1185	mg/L	11/19/2021	KCWELLS	SM 2540C
рН	4.95	SU	11/17/2021	DEW/ML	
Spec. Cond.	1510	uS	11/17/2021	DEW/ML	
Dissolved Oxygen	1.53	ppm	11/17/2021	DEW/ML	
Oxidation Reduction Potential	230	mv	11/17/2021	DEW/ML	SM2580
Temp	23.90	С	11/17/2021	DEW/ML	
Turbidity	0	NTU	11/17/2021	DEW/ML	
Depth	8.59	Feet	11/17/2021	DEW/ML	
Elevation	75.53	Feet	11/19/2021	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





Sample # AF21738 Location: GW Well CGYP-5 Date: 12/06/2021 Sample Collector: TW ML

Loc. Code CGYP-5 Time: 11:13

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<2.0	ug/L	01/19/2022	PACE	EPA 6020B
Barium	130	ug/L	01/19/2022	PACE	EPA 6020B
Beryllium	10	ug/L	01/19/2022	PACE	EPA 6020B
Boron	4100	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Calcium	250	mg/L	01/19/2022	PACE	EPA 6020B
Cadmium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Cobalt	68	ug/L	01/19/2022	PACE	EPA 6020B
Chromium	<5.0	ug/L	01/19/2022	PACE	EPA 6020B
Mercury	<0.20	ug/L	12/16/2021	ROGERSNCALLC	EPA 7470
Lithium	91	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	12/17/2021	ROGERSNCALLC	EPA 6010D
Lead	<1.0	ug/L	01/19/2022	PACE	EPA 6020B
Antimony	<2.0	ug/L	01/19/2022	PACE	EPA 6020B
Selenium	7.2	ug/L	01/19/2022	PACE	EPA 6020B
Thallium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Radium 226	0.470	pCi/L	01/04/2022	GEL	EPA 903.1 Mod
Radium 228	2.46	pCi/L	01/05/2022	GEL	EPA 904.0
Radium 226/228 Combined Calculation	2.92	pCi/L	01/05/2022	GEL	EPA 903.1 Mod
Chloride	312	mg/L	12/08/2021	KCWELLS	EPA 300.0
Fluoride	0.26	mg/L	12/08/2021	KCWELLS	EPA 300.0
Sulfate	301	mg/L	12/08/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1326	mg/L	12/13/2021	KCWELLS	SM 2540C
рН	5.15	SU	12/06/2021	DEW/ML	
Spec. Cond.	1560	uS	12/06/2021	DEW/ML	
Dissolved Oxygen	0.980	ppm	12/06/2021	DEW/ML	
Oxidation Reduction Potential	200	mv	12/06/2021	DEW/ML	SM2580
Тетр	22.94	С	12/06/2021	DEW/ML	
Turbidity	6.20	NTU	12/06/2021	DEW/ML	
Depth	8.65	Feet	12/06/2021	DEW/ML	
Elevation	75.47	Feet	12/08/2021	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





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SANTEE COOPER ANALYTICAL SERVICES CERTIFICATE OF ANALYSIS LAB CERTIFICATION #08552

Sample # AF00635 Location: GW Well CGYP-6 Date: 04/07/2021 Sample Collector: DEW/MDG

Loc. Code CGYP-6 Time: 16:02

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Barium	326	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Beryllium	27.7	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Boron	7000	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Calcium	480	mg/L	05/06/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Cobalt	163	ug/L	05/07/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	04/16/2021	ROGERSNCALLC	EPA 7470
Lithium	140	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	04/16/2021	ROGERSNCALLC	EPA 6010D
Lead	13.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	05/06/2021	SJHATCHE	EPA 6020B
Radium 226	0.850	pCi/L	04/22/2021	GEL	EPA 903.1 Mod
Radium 228	2.83	pCi/L	04/20/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	3.68	pCi/L	05/05/2021	GEL	EPA 903.1 Mod
Chloride	1160	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Fluoride	1.10	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Sulfate	96.3	mg/L	04/14/2021	LCWILLIA	EPA 300.0
Total Dissolved Solids	3952	mg/L	04/19/2021	SJBROWN	SM 2540C
рН	3.68	SU	04/07/2021	DEW/MDG	
Spec. Cond.	3700	uS	04/07/2021	DEW/MDG	
Dissolved Oxygen	0.330	ppm	04/07/2021	DEW/MDG	
Oxidation Reduction Potential	276	mv	04/07/2021	DEW/MDG	SM2580
Temp	23.98	С	04/07/2021	DEW/MDG	
Turbidity	0	NTU	04/07/2021	DEW/MDG	
Depth	7.60	Feet	04/07/2021	DEW/MDG	
Elevation	75.63	Feet	04/22/2021	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





Sample # AF03571 Location: GW Well CGYP-6 Date: 05/13/2021 Sample Collector: MDG/BWM

Loc. Code CGYP-6 Time: 16:55

Analysis	Result	Units	Test Date	Analyst	Method	
Arsenic	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Barium	437	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Beryllium	23.9	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Boron	6900	ug/L	05/25/2021	R&C	EPA 6010D	
Calcium	468	mg/L	05/19/2021	SJHATCHE	EPA 6020B	
Cadmium	<0.50	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Cobalt	149	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Chromium	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Mercury	<0.2	ug/L	05/27/2021	R&C	EPA 7470	
Lithium	130	ug/L	05/25/2021	R&C	EPA 6010D	
Molybdenum	<10	ug/L	05/25/2021	R&C	EPA 6010D	
Lead	12.7	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Antimony	<5.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Selenium	<10.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Thallium	<1.0	ug/L	05/19/2021	SJHATCHE	EPA 6020B	
Radium 226	1.52	pCi/L	06/02/2021	GEL	EPA 903.1 Mod	
Radium 228	4.79	pCi/L	06/04/2021	GEL	EPA 904.0	
Radium 226/228 Combined Calculation	6.31	pCi/L	06/11/2021	GEL	EPA 903.1 Mod	
Chloride	1090	mg/L	05/26/2021	KCWELLS	EPA 300.0	
Fluoride	0.84	mg/L	05/18/2021	KCWELLS	EPA 300.0	
Sulfate	83.6	mg/L	05/18/2021	KCWELLS	EPA 300.0	
Total Dissolved Solids	2804	mg/L	05/21/2021	KCWELLS	SM 2540C	
рН	3.70	SU	05/14/2021	MDG/BWM		
Spec. Cond.	3710	uS	05/14/2021	MDG/BWM		
Dissolved Oxygen	0.470	ppm	05/14/2021	MDG/BWM		
Oxidation Reduction Potential	253	mv	05/14/2021	MDG/BWM	SM2580	
Temp	20.67	С	05/14/2021	MDG/BWM		
Turbidity	0	NTU	05/14/2021	MDG/BWM		
Depth	7.99	Feet	05/14/2021	MDG/BWM		
Elevation	75.24	Feet	05/17/2021	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





Sample # AF07273 Location: GW Well CGYP-6 Date: 07/08/2021 Sample Collector: MDG/BRT

Loc. Code CGYP-6 Time: 12:21

- Analysis	Result	Units	Test Date	Analyst	Method	
Arsenic	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B	
Barium	585	ug/L	08/04/2021	SJHATCHE	EPA 6020B	
Beryllium	21.2	ug/L	08/04/2021	SJHATCHE	EPA 6020B	
Boron	6700	ug/L	07/14/2021	R&C	EPA 6010D	
Calcium	438	mg/L	08/03/2021	SJHATCHE	EPA 6020B	
Cadmium	<0.50	ug/L	08/03/2021	SJHATCHE	EPA 6020B	
Cobalt	147	ug/L	08/04/2021	SJHATCHE	EPA 6020B	
Chromium	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B	
Mercury	<0.2	ug/L	07/16/2021	R&C	EPA 7470	
Lithium	120	ug/L	07/14/2021	R&C	EPA 6010D	
Molybdenum	<10	ug/L	07/14/2021	R&C	EPA 6010D	
Lead	13.1	ug/L	08/03/2021	SJHATCHE	EPA 6020B	
Antimony	<5.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B	
Selenium	<10.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B	
Thallium	<1.0	ug/L	08/03/2021	SJHATCHE	EPA 6020B	
Radium 226	1.85	pCi/L	07/22/2021	GEL	EPA 903.1 Mod	
Radium 228	4.24	pCi/L	08/03/2021	GEL	EPA 904.0	
Radium 226/228 Combined Calculation	6.08	pCi/L	08/05/2021	GEL	EPA 903.1 Mod	
Chloride	1082	mg/L	07/09/2021	KCWELLS	EPA 300.0	
Fluoride	0.99	mg/L	07/09/2021	KCWELLS	EPA 300.0	
Sulfate	84.3	mg/L	07/09/2021	KCWELLS	EPA 300.0	
Total Dissolved Solids	2851	mg/L	07/15/2021	SJBROWN	SM 2540C	
рН	3.54	SU	07/08/2021	MDG/BRT		
Spec. Cond.	3540	uS	07/08/2021	MDG/BRT		
Dissolved Oxygen	0.750	ppm	07/08/2021	MDG/BRT		
Oxidation Reduction Potential	202	mv	07/08/2021	MDG/BRT	SM2580	
Temp	25.56	С	07/08/2021	MDG/BRT		
Turbidity	0	NTU	07/08/2021	MDG/BRT		
Depth	8.20	Feet	07/08/2021	MDG/BRT		
Elevation	75.03	Feet	07/14/2021	BRTAYLOR		

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





Sample # AF13776 Location: GW Well CGYP-6 Date: 08/31/2021 Sample Collector: DEW/ML

Loc. Code CGYP-6 Time: 11:02

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Barium	564	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Beryllium	19.7	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Boron	6900	ug/L	09/10/2021	R&C	EPA 6010D
Calcium	441	mg/L	09/09/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Cobalt	150	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Mercury	<0.20	ug/L	09/16/2021	R&C	EPA 7470
Lithium	130	ug/L	09/10/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	09/10/2021	R&C	EPA 6010D
Lead	13.6	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	09/09/2021	SJHATCHE	EPA 6020B
Radium 226	1.49	pCi/L	09/29/2021	GEL	EPA 903.1 Mod
Radium 228	4.04	pCi/L	09/29/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.53	pCi/L	10/01/2021	GEL	EPA 903.1 Mod
Chloride	1033	mg/L	09/08/2021	KCWELLS	EPA 300.0
Fluoride	0.75	mg/L	09/08/2021	KCWELLS	EPA 300.0
Sulfate	84.3	mg/L	09/08/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2740	mg/L	09/09/2021	SJBROWN	SM 2540C
рН	3.67	SU	08/31/2021	DEW/ML	
Spec. Cond.	3460	uS	08/31/2021	DEW/ML	
Dissolved Oxygen	0.330	ppm	08/31/2021	DEW/ML	
Oxidation Reduction Potential	132	mv	08/31/2021	DEW/ML	SM2580
Temp	27.22	С	08/31/2021	DEW/ML	
Turbidity	4.20	NTU	08/31/2021	DEW/ML	
Depth	7.57	Feet	08/31/2021	DEW/ML	
Elevation	75.66	Feet	09/02/2021	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





Sample # AF15790 Location: GW Well CGYP-6 Date: 09/27/2021 Sample Collector: DEW/ML

Loc. Code CGYP-6 Time: 12:32

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Barium	705	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Beryllium	21.9	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Boron	7300	ug/L	10/04/2021	R&C	EPA 6010D
Calcium	474	mg/L	10/12/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Cobalt	157	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	10/06/2021	R&C	EPA 7470
Lithium	150	ug/L	10/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	10/04/2021	R&C	EPA 6010D
Lead	13.7	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	10/11/2021	SJHATCHE	EPA 6020B
Radium 226	1.97	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Radium 228	5.96	pCi/L	10/15/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	7.93	pCi/L	10/26/2021	GEL	EPA 903.1 Mod
Chloride	1061	mg/L	09/30/2021	KCWELLS	EPA 300.0
Fluoride	0.98	mg/L	09/30/2021	KCWELLS	EPA 300.0
Sulfate	90.9	mg/L	09/30/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2382	mg/L	10/04/2021	KCWELLS	SM 2540C
рН	3.62	SU	09/27/2021	DEW/ML	
Spec. Cond.	3520	uS	09/27/2021	DEW/ML	
Dissolved Oxygen	0.620	ppm	09/27/2021	DEW/ML	
Oxidation Reduction Potential	222	mv	09/27/2021	DEW/ML	SM2580
Temp	27.14	С	09/27/2021	DEW/ML	
Turbidity	0	NTU	09/27/2021	DEW/ML	
Depth	7.80	Feet	09/27/2021	DEW/ML	
Elevation	75.43	Feet	10/01/2021	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





Sample # AF18537 Location: GW Well CGYP-6 Date: 10/26/2021 Sample Collector: DEW/ML

Loc. Code CGYP-6 Time: 12:54

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Barium	529	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Beryllium	21.4	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Boron	6700.0	ug/L	11/04/2021	R&C	EPA 6010D
Calcium	455	mg/L	11/02/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Cobalt	158	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/09/2021	R&C	EPA 7470
Lithium	110	ug/L	11/04/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/04/2021	R&C	EPA 6010D
Lead	15.8	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	11/02/2021	SJHATCHE	EPA 6020B
Radium 226	2.54	pCi/L	11/08/2021	GEL	EPA 903.1 Mod
Radium 228	3.94	pCi/L	11/04/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	6.48	pCi/L	11/10/2021	GEL	EPA 903.1 Mod
Chloride	1070	mg/L	11/10/2021	KCWELLS	EPA 300.0
Fluoride	0.42	mg/L	11/10/2021	KCWELLS	EPA 300.0
Sulfate	92.7	mg/L	11/10/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2306	mg/L	11/02/2021	KCWELLS	SM 2540C
рН	3.54	SU	10/26/2021	DEW/ML	
Spec. Cond.	3670	uS	10/26/2021	DEW/ML	
Dissolved Oxygen	0.340	ppm	10/26/2021	DEW/ML	
Oxidation Reduction Potential	278	mv	10/26/2021	DEW/ML	SM2580
Temp	24.18	С	10/26/2021	DEW/ML	
Turbidity	0	NTU	10/26/2021	DEW/ML	
Depth	8.65	Feet	10/26/2021	DEW/ML	
Elevation	74.58	Feet	10/28/2021	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





Sample # AF20418 Location: GW Well CGYP-6 Date: 11/17/2021 Sample Collector: DEW/ML

Loc. Code CGYP-6 Time: 13:04

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Barium	865	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Beryllium	19.4	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Boron	5200.0	ug/L	11/24/2021	R&C	EPA 6010D
Calcium	396	mg/L	12/08/2021	SJHATCHE	EPA 6020B
Cadmium	<0.50	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Cobalt	128	ug/L	12/13/2021	SJHATCHE	EPA 6020B
Chromium	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Mercury	<0.2	ug/L	11/29/2021	R&C	EPA 7470
Lithium	110	ug/L	11/24/2021	R&C	EPA 6010D
Molybdenum	<10	ug/L	11/30/2021	R&C	EPA 6010D
Lead	6.8	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Antimony	<5.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Selenium	<10.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Thallium	<1.0	ug/L	12/08/2021	SJHATCHE	EPA 6020B
Radium 226	3.82	pCi/L	12/03/2021	GEL	EPA 903.1 Mod
Radium 228	5.88	pCi/L	12/27/2021	GEL	EPA 904.0
Radium 226/228 Combined Calculation	9.69	pCi/L	12/28/2021	GEL	EPA 903.1 Mod
Chloride	865	mg/L	12/01/2021	KCWELLS	EPA 300.0
Fluoride	0.58	mg/L	12/01/2021	KCWELLS	EPA 300.0
Sulfate	67.0	mg/L	12/01/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	1899	mg/L	11/19/2021	KCWELLS	SM 2540C
рН	3.66	SU	11/17/2021	DEW/ML	
Spec. Cond.	3170	uS	11/17/2021	DEW/ML	
Dissolved Oxygen	0.530	ppm	11/17/2021	DEW/ML	
Oxidation Reduction Potential	287	mv	11/17/2021	DEW/ML	SM2580
Temp	23.24	С	11/17/2021	DEW/ML	
Turbidity	0	NTU	11/17/2021	DEW/ML	
Depth	9.13	Feet	11/17/2021	DEW/ML	
Elevation	74.10	Feet	11/19/2021	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





Sample # AF21739 Location: GW Well CGYP-6 Date: 12/06/2021 Sample Collector: TW ML

Loc. Code CGYP-6 Time: 12:15

Analysis	Result	Units	Test Date	Analyst	Method
Arsenic	<2.0	ug/L	01/19/2022	PACE	EPA 6020B
Barium	1200	ug/L	01/19/2022	PACE	EPA 6020B
Beryllium	25	ug/L	01/19/2022	PACE	EPA 6020B
Boron	6200	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Calcium	380	mg/L	01/19/2022	PACE	EPA 6020B
Cadmium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Cobalt	100	ug/L	01/19/2022	PACE	EPA 6020B
Chromium	<5.0	ug/L	01/19/2022	PACE	EPA 6020B
Mercury	<0.20	ug/L	12/16/2021	ROGERSNCALLC	EPA 7470
Lithium	150	ug/L	12/20/2021	ROGERSNCALLC	EPA 6010D
Molybdenum	<10	ug/L	12/17/2021	ROGERSNCALLC	EPA 6010D
Lead	3.9	ug/L	01/19/2022	PACE	EPA 6020B
Antimony	<2.0	ug/L	01/19/2022	PACE	EPA 6020B
Selenium	10	ug/L	01/19/2022	PACE	EPA 6020B
Thallium	<0.50	ug/L	01/19/2022	PACE	EPA 6020B
Radium 226	2.74	pCi/L	01/04/2022	GEL	EPA 903.1 Mod
Radium 228	2.88	pCi/L	01/05/2022	GEL	EPA 904.0
Radium 226/228 Combined Calculation	5.62	pCi/L	01/05/2022	GEL	EPA 903.1 Mod
Chloride	862	mg/L	12/08/2021	KCWELLS	EPA 300.0
Fluoride	0.74	mg/L	12/08/2021	KCWELLS	EPA 300.0
Sulfate	42.7	mg/L	12/08/2021	KCWELLS	EPA 300.0
Total Dissolved Solids	2158	mg/L	12/13/2021	KCWELLS	SM 2540C
рН	3.46	SU	12/06/2021	DEW/ML	
Spec. Cond.	2850	uS	12/06/2021	DEW/ML	
Dissolved Oxygen	2.74	ppm	12/06/2021	DEW/ML	
Oxidation Reduction Potential	455	mv	12/06/2021	DEW/ML	SM2580
Temp	24.15	С	12/06/2021	DEW/ML	
Turbidity	1.40	NTU	12/06/2021	DEW/ML	
Depth	9.38	Feet	12/06/2021	DEW/ML	
Elevation	73.85	Feet	12/08/2021	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







Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Ground Water Project: Work Order: 1020859

Received: 02/16/2021 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 16, 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

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water Work Order: 1020859

Received: 02/16/2021 10:20

Sample Number	Sample Description	Matrix	Sampled	Type
1020859-01	AE94857 CCMAP-3	Ground Water	02/10/21 16:09	Grab
1020859-02	AE94858 CCMAP-3 DUP	Ground Water	02/10/21 16:14	Grab
1020859-03	AE94861 CGYP-1	Ground Water	02/10/21 11:16	Grab
1020859-04	AE94862 CGYP-2	Ground Water	02/10/21 12:23	Grab
1020859-05	AE94863 CGYP-2 DUP	Ground Water	02/10/21 12:28	Grab
1020859-06	AE94864 CGYP-3	Ground Water	02/10/21 13:38	Grab
1020859-07	AE94855 CCMAP-1	Ground Water	02/11/21 12:28	Grab
1020859-08	AE94856 CCMAP-2	Ground Water	02/11/21 13:14	Grab

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Santee Cooper Project: Ground Water
1 Riverwood Dr. Work Order: 1020859
Moncks Corner, SC 29461 Reported: 02/24/21 17:04

Sample Data

Sample Number

1020859-01

Sample Description	AE94857 CCMAP-3 collected or	n 02/10/21 16:0	09						
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	15	10	ug/L	1.00	02/18/21 17:54	EPA 6010D		MLR	B1B0817
Sample Number Sample Description	1020859-02 AE94858 CCMAP-3 DUP collec	eted on 02/10/2	21 16:14						
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	16	10	ug/L	1.00	02/18/21 19:04	EPA 6010D		MLR	B1B0817
Sample Number Sample Description	1020859-03 AE94861 CGYP-1 collected on 0	02/10/21 11:16							
Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:06	EPA 7470A	S7	MLR	B1B1040
Boron	14000	150	ug/L	10.0	02/24/21 15:46	EPA 6010D		MLR	B1B0817
Lithium	ND	100	ug/L	10.0	02/24/21 15:46	EPA 6010D	Z	MLR	B1B0817
Molybdenum	ND	500	ug/L	10.0	02/24/21 15:46	EPA 6010D	Z	MLR	B1B0817

Sample Number

1020859-04

Sample Description

AE94862 CGYP-2 collected on 02/10/21 12:23

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:34	EPA 7470A	S7	MLR	B1B1040
Boron	960	150	ug/L	10.0	02/23/21 18:37	EPA 6010D		MLR	B1B0817
Lithium	13	10	ug/L	1.00	02/18/21 19:12	EPA 6010D		MLR	B1B0817
Molybdenum	ND	10	ug/L	1.00	02/18/21 19:12	EPA 6010D		MLR	B1B0817

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Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported:

1020859 02/24/21 17:04

Sample Number

1020859-05

Sample Description

AE94863 CGYP-2 DUP collected on 02/10/21 12:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:37	EPA 7470A	S7	MLR	B1B1040
Boron	980	150	ug/L	10.0	02/23/21 18:41	EPA 6010D		MLR	B1B0817
Lithium	13	10	ug/L	1.00	02/18/21 19:16	EPA 6010D		MLR	B1B0817
Molybdenum	ND	10	ug/L	1.00	02/18/21 19:16	EPA 6010D		MLR	B1B0817

Sample Number

1020859-06

Sample Description AE94864 CGYP-3 collected on 02/10/21 13:38

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	02/23/21 11:40	EPA 7470A	S7	MLR	B1B1040
Boron	25000	150	ug/L	10.0	02/24/21 15:58	EPA 6010D		MLR	B1B0817
Lithium	110	20	ug/L	2.00	02/18/21 18:41	EPA 6010D		MLR	B1B0817
Molybdenum	ND	20	ug/L	2.00	02/18/21 18:41	EPA 6010D		MLR	B1B0817

Sample Number

1020859-07

Sample Description AE94855 CCMAP-1 collected on 02/11/21 12:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	02/18/21 19:24	EPA 6010D		MLR	B1B0817

Sample Number

1020859-08

Sample Description AE94856 CCMAP-2 collected on 02/11/21 13:14

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	02/18/21 19:28	EPA 6010D		MLR	B1B0817

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Santee Cooper Project: Ground Water
1 Riverwood Dr. Work Order: 1020859
Moncks Corner, SC 29461 Reported: 02/24/21 17:04

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1B0817 - EPA 3005A										
Blank (B1B0817-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1B0817-BS1)										
Boron	230	15	ug/L	250		93	80-120			
Lithium	249	10	ug/L	250		100	80-120			
Molybdenum	230	10	ug/L	250		92	80-120			
LCS Dup (B1B0817-BSD1)										
Boron	240	15	ug/L	250		96	80-120	3	20	
Lithium	260	10	ug/L	250		104	80-120	4	20	
Molybdenum	240	10	ug/L	250		96	80-120	4	20	
Matrix Spike (B1B0817-MS1)	Source: 1020859-01	1								
Boron	14000	75	ug/L	250	14000	209	75-125			S5
Lithium	326	10	ug/L	250	15	124	75-125			
Molybdenum	250	10	ug/L	250	ND	98	75-125			
Matrix Spike Dup (B1B0817-MSD1)	Source: 1020859-01	1								
Boron	14000	75	ug/L	250	14000	120	75-125	2	20	
Lithium	312	10	ug/L	250	15	119	75-125	4	20	
Molybdenum	240	10	ug/L	250	ND	95	75-125	4	20	
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	

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 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1020859

 Moncks Corner, SC 29461
 Reported:
 02/24/21 17:04

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										
Matrix Spike (B1B1040-MS1)	Source: 1020859-03									
Mercury	4.1	0.20	ug/L	5.00	ND	80	75-125			S7
Matrix Spike Dup (B1B1040-MSD1)	Source: 1020859-03									
Mercury	4.0	0.20	по/L	5.00	ND	78	75-125	3	20	S7

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1B0817	1020859-01	02/17/2021 08:59	MLR	
EPA 3005A	B1B0817	1020859-02	02/17/2021 08:59	MLR	
EPA 3005A	B1B0817	1020859-03	02/17/2021 08:59	MLR	
EPA 3005A	B1B0817	1020859-04	02/17/2021 08:59	MLR	
EPA 3005A	B1B0817	1020859-05	02/17/2021 08:59	MLR	
EPA 3005A	B1B0817	1020859-06	02/17/2021 08:59	MLR	
EPA 3005A	B1B0817	1020859-07	02/17/2021 08:59	MLR	
EPA 3005A	B1B0817	1020859-08	02/17/2021 08:59	MLR	
EPA 7470A Mercury Digestion					
EPA 7470A	B1B1040	1020859-03	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1020859-04	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1020859-05	02/22/2021 16:38	MLR	
EPA 7470A	B1B1040	1020859-06	02/22/2021 16:38	MLR	

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Ground Water Santee Cooper Project: 1 Riverwood Dr. Work Order: 1020859 Moncks Corner, SC 29461 Reported: 02/24/21 17:04

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.
S7	Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Unable to meet the client requested RL for this analyte. Internal Standard (ISTD) was not within QC limits due to sample matrix interference. Therefore, the sample was diluted to reduce matrix & to meet the ISTD requirements for reporting per the method.

Chain of Custody



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:					Rerun reque	request for any flagged QC								
@santeecooper.com							1215	567	/_JM		s No						
												١	020859		Analys	is Grou	up
(Internal only)		Sample Location Description	on/	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	T	thod # corting limit sc. sample info y other notes	<u> </u>	נ	Mo	Hg
AE 948	57	CCMAP-3	3	2/10/24	1609	NDG DEW	1	P	G	GW	2	101			X		
AE948	58	CCMAP-3	DUP		1614	1	1	1	1	1	1	-02			X		
AE 948	61	COYP-1			1116)			1		-03		×	×	×	×
AE948	62	GGYP-2			1223							-04		×	×	×	×
AE7486	.3	CGYP- 2 D	UP		1228							-05		Х	X	×	×
AE948	64	CGYP-3			1338	1	1	1	Ţ	1	1	-06		X	x	×	X
AE948	55	CCMAP-1		2/11/21	1228		1		1			-07			X		
AE948	56	CCMAP-2		1	1314		1	1	1			-08			X		
	shed by:	Employee#	Date	Time		red by:	E	mployee	# 5 4	Date	69	Time	Sample Receiving (International TEMP (°C): 11.8				
Relinquished by:		Employee#	2/15/21 Date	Time	FG G	ed by:	F	mployee		Date		Time	Correct pH: Yes 1	No			
FGP EXT Relinquished by:		Employee#	Date	Time	30	ed by:		mployee	2	100000000000000000000000000000000000000		1020 Time	Preservative Lot#:				
													Date/Time/Init for prese	rvative:			
☐ Ag ☐ As ☐ B ☐ Ba ☐ Ca ☐ Co	□ 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		C TPO4 3 N	□ BTEX □ Napthalene		E	Gypsum Wallboard Gypsum(all below) AIM TOC Total metals Soluble Metals Purity (CaSO4) % Moisture Sulfites pH Chlorides Particle Size			0000	Coal Ultimate % Moist Ash Sulfur BTUs Volatile CHN ther Tests: XRF Scan HGI Fineness Particulate Ma	Matter Sieve NPDES Oil & Grease As	Oil Frans, Oil Qual. Salvonium Color Addity Dislocing Strongth Fir Dissolved Games Used Oil Flashpoint Ments ut oil (As Cd.Ct.Ni,Pb.Hg) TX				
□ Cr	□ Pb							Sulfur	ucie 312			I articulate M	D TSS		GOFER		



Revised February 2018

Sample Receipt Verification

Client:	Santee Cooper	Date Received:	2/	16/21		Work Order: ¹⁰²⁰⁸⁵⁹			
Carrier Name:	Client FedEx UPS 816240 Tracking Number:	S US I 0672624	Mail		Cou	rier Field Services Other:			
Receipt Crite	eria	Y e s	N o	N A	Comments				
Shipping conta	iner / cooler intact?		Χ			Damaged Leaking Other:			
Custody seals i	intact?				Х				
COC included	with samples?		Х						
COC signed w	hen relinquished and received?		Χ						
Sample bottles	intact?		Х			Damaged Leaking Other:			
Sample ID on	COC agree with label on bottle(s)?		Х						
Date / time on	COC agree with label on bottle(s)?		Х						
Number of bott	tles on COC agrees with number of bottles	s received?	Х						
Samples receiv	red within holding time?		Х						
Sample volume	e sufficient for analysis?		X						
VOA vials free	e of headspace (<6mm bubble)?				Х				
Samples cooled	Temp at receipt recorded on COC Temp measured with IR thermometer - SN	: 97050067			Х	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. 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				
unary 515.	If in-house	preservation	used	– re	cord	Lot#			
HCL		H ₃ P	O_4						
H ₂ SO ₄ HNO ₃	Nat Ort								
HNO ₃ Other Comments:									
comments.									
Were non-conformance issues noted at sample receipt? Yes or No Non-Conformance issue other than noted above:									

Completed by:____

Page 9 of 9





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Ground Water Project: Work Order: 1040743

Received: 04/14/2021 09:20

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 April 14, 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

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water **Work Order:** 1040743

Received: 04/14/2021 09:20

Sample Number	Sample Description	Matrix	Sampled	Type
1040743-01	AF00633 CGYP-4	Ground Water	04/07/21 11:06	Grab
1040743-02	AF00629 CGYP-1	Ground Water	04/07/21 12:16	Grab
1040743-03	AF00630 CGYP-2	Ground Water	04/07/21 13:16	Grab
1040743-04	AF00631 CGYP-2 DUP	Ground Water	04/07/21 13:21	Grab
1040743-05	AF00632 CGYP-3	Ground Water	04/07/21 14:20	Grab
1040743-06	AF00634 CGYP-5	Ground Water	04/07/21 15:09	Grab
1040743-07	AF00635 CGYP-6	Ground Water	04/07/21 16:02	Grab
1040743-08	AF00697 CCMAP-4	Ground Water	04/08/21 10:32	Grab
1040743-09	AF00698 CCMAP-4 DUP	Ground Water	04/08/21 10:37	Grab
1040743-10	AF00693 WLF-A2-6	Ground Water	04/08/21 15:27	Grab
1040743-11	AF00694 WLF-A2-6 DUP	Ground Water	04/08/21 15:32	Grab
1040743-12	AF00695 WAP-17	Ground Water	04/08/21 13:31	Grab
1040743-13	AF00696 WAP-17 DUP	Ground Water	04/08/21 13:36	Grab



Sample Data

Sample Number

1040743-01

Sample Description

AF00633 CGYP-4 collected on 04/07/21 11:06

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:12	EPA 7470A		MLR	B1D0679
Boron	7600	75	ug/L	5.00	04/16/21 14:48	EPA 6010D		MLR	B1D0837
Lithium	58	10	ug/L	1.00	04/16/21 15:58	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 15:58	EPA 6010D		MLR	B1D0590

Sample Number

1040743-02

Sample Description AF00629 CGYP-1 collected on 04/07/21 12:16

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:24	EPA 7470A		MLR	B1D0679
Boron	11000	75	ug/L	5.00	04/16/21 14:52	EPA 6010D		MLR	B1D0837
Lithium	20	20	ug/L	2.00	04/21/21 16:28	EPA 6010D	X	MLR	B1D0590
Molybdenum	ND	20	ug/L	2.00	04/21/21 16:28	EPA 6010D	X	MLR	B1D0590

Sample Number Sample Description 1040743-03

AF00630 CGYP-2 collected on 04/07/21 13:16

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:35	EPA 7470A		MLR	B1D0679
Boron	850	75	ug/L	5.00	04/16/21 12:53	EPA 6010D		MLR	B1D0837
Lithium	14	10	ug/L	1.00	04/16/21 13:12	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 13:12	EPA 6010D		MLR	B1D0590

Sample Number

1040743-04

Sample Description AF00631 CGYP-2 DUP collected on 04/07/21 13:21

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:38	EPA 7470A		MLR	B1D0679
Boron	890	75	ug/L	5.00	04/16/21 14:56	EPA 6010D		MLR	B1D0837
Lithium	15	10	ug/L	1.00	04/16/21 16:29	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:29	EPA 6010D		MLR	B1D0590

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Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported:

1040743 04/22/21 14:29

Sample Number

1040743-05

Sample Description

AF00632 CGYP-3 collected on 04/07/21 14:20

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	0.21	0.20	ug/L	1.00	04/16/21 10:46	EPA 7470A		MLR	B1D0679
Boron	23000	75	ug/L	5.00	04/16/21 15:00	EPA 6010D		MLR	B1D0837
Lithium	94	10	ug/L	1.00	04/16/21 16:33	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:33	EPA 6010D		MLR	B1D0590

Sample Number

1040743-06

Sample Description AF00634 CGYP-5 collected on 04/07/21 15:09

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:49	EPA 7470A		MLR	B1D0679
Boron	3100	75	ug/L	5.00	04/16/21 15:03	EPA 6010D		MLR	B1D0837
Lithium	60	10	ug/L	1.00	04/16/21 16:36	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:36	EPA 6010D		MLR	B1D0590

Sample Number Sample Description 1040743-07

AF00635 CGYP-6 collected on 04/07/21 16:02

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:52	EPA 7470A		MLR	B1D0679
Boron	7000	75	ug/L	5.00	04/16/21 15:07	EPA 6010D		MLR	B1D0837
Lithium	140	10	ug/L	1.00	04/16/21 16:40	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:40	EPA 6010D		MLR	B1D0590

Sample Number

1040743-08

Sample Description AF00697 CCMAP-4 collected on 04/08/21 10:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	04/16/21 15:49	EPA 6010D		MLR	B1D0590



Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported:

1040743 04/22/21 14:29

Sample Number 10

1040743-09

Sample Description

AF00698 CCMAP-4 DUP collected on 04/08/21 10:37

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Lithium	ND	10	ug/L	1.00	04/16/21 15:54	EPA 6010D		MLR	B1D0590

Sample Number Sample Description 1040743-10

AF00693 WLF-A2-6 collected on 04/08/21 15:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:54	EPA 7470A		MLR	B1D0679
Boron	310	75	ug/L	5.00	04/16/21 15:11	EPA 6010D		MLR	B1D0837
Lithium	24	10	ug/L	1.00	04/16/21 16:44	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:44	EPA 6010D		MLR	B1D0590

Sample Number

1040743-11

Sample Description AF00694 WLF-A2-6 DUP collected on 04/08/21 15:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 10:57	EPA 7470A		MLR	B1D0679
Boron	280	75	ug/L	5.00	04/16/21 15:38	EPA 6010D		MLR	B1D0837
Lithium	32	10	ug/L	1.00	04/16/21 16:48	EPA 6010D		MLR	B1D0590
Molybdenum	ND	10	ug/L	1.00	04/16/21 16:48	EPA 6010D		MLR	B1D0590

Sample Number

1040743-12

Sample Description AF00695 WAP-17 collected on 04/08/21 13:31

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 11:00	EPA 7470A		MLR	B1D0679
Boron	3300	75	ug/L	5.00	04/16/21 13:35	EPA 6010D		MLR	B1D0837
Lithium	130	10	ug/L	1.00	04/16/21 14:01	EPA 6010D		MLR	B1D0590
Molybdenum	59	10	ug/L	1.00	04/16/21 14:01	EPA 6010D		MLR	B1D0590



Sample Number 1040743-13

Sample Description AF00696 WAP-17 DUP collected on 04/08/21 13:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	04/16/21 11:03	EPA 7470A		MLR	B1D0679
Boron	3300	75	ug/L	5.00	04/16/21 15:42	EPA 6010D		MLR	B1D0837
Lithium	120	10	ug/L	1.00	04/16/21 16:52	EPA 6010D		MLR	B1D0590
Molybdenum	57	10	ug/L	1.00	04/16/21 16:52	EPA 6010D		MLR	B1D0590



Total Metals **Quality Control Summary**

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1D0590 - EPA 3005A										
Blank (B1D0590-BLK1)										
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1D0590-BS1)										
Lithium	256	10	ug/L	250		102	80-120			
Molybdenum	300	10	ug/L	250		120	80-120			
LCS Dup (B1D0590-BSD1)										
Lithium	266	10	ug/L	250		107	80-120	4	20	
Molybdenum	260	10	ug/L	250		105	80-120	14	20	
Matrix Spike (B1D0590-MS1)	Source: 1040743-03									
Lithium	260	10	ug/L	250	14	98	75-125			
Molybdenum	200	10	ug/L	250	ND	81	75-125			
Matrix Spike (B1D0590-MS2)	Source: 1040743-12									
Lithium	421	10	ug/L	250	126	118	75-125			
Molybdenum	310	10	ug/L	250	59	100	75-125			
Matrix Spike Dup (B1D0590-MSD1)	Source: 1040743-03									
Lithium	263	10	ug/L	250	14	100	75-125	1	20	
Molybdenum	210	10	ug/L	250	ND	83	75-125	2	20	
Matrix Spike Dup (B1D0590-MSD2)	Source: 1040743-12									
Lithium	412	10	ug/L	250	126	114	75-125	2	20	
Molybdenum	310	10	ug/L	250	59	98	75-125	0.9	20	
Post Spike (B1D0590-PS1)	Source: 1040743-03									
Lithium	501	10	ug/L	500	14	97	75-125			
Molybdenum	430	10	ug/L	500	ND	86	75-125			
Post Spike (B1D0590-PS2)	Source: 1040743-12									
Lithium	691	10	ug/L	500	126	113	75-125			
Molybdenum	570	10	ug/L	500	59	102	75-125			

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Santee Cooper Project:
1 Riverwood Dr. Work Order:
Moncks Corner, SC 29461 Reported:

Total Metals **Quality Control Summary**

Ground Water

04/22/21 14:29

1040743

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1D0679 - EPA 7470A										
Blank (B1D0679-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1D0679-BS1)										
Mercury	5.0	0.20	ug/L	5.00		101	80-120			
LCS Dup (B1D0679-BSD1)										
Mercury	5.0	0.20	ug/L	5.00		100	80-120	1	20	
Matrix Spike (B1D0679-MS1)	Source: 1040743-01									
Mercury	4.3	0.20	ug/L	5.00	ND	84	75-125			
Matrix Spike (B1D0679-MS2)	Source: 1040743-02									
Mercury	4.7	0.20	ug/L	5.00	ND	92	75-125			
Matrix Spike Dup (B1D0679-MSD1)	Source: 1040743-01									
Mercury	4.3	0.20	ug/L	5.00	ND	83	75-125	0.9	20	
Matrix Spike Dup (B1D0679-MSD2)	Source: 1040743-02									
Mercury	4.7	0.20	ug/L	5.00	ND	93	75-125	0.7	20	
Post Spike (B1D0679-PS1)	Source: 1040743-01									
Mercury	3.4		ug/L	4.00	ND	82	80-120			
Post Spike (B1D0679-PS2)	Source: 1040743-02									
Mercury	3.6		ug/L	4.00	ND	88	80-120			
Post Spike (B1D0679-PS3)	Source: 1040743-03									
Mercury	3.2		ug/L	4.00	ND	81	80-120			
Post Spike (B1D0679-PS4)	Source: 1040743-04									
Mercury	3.2		ug/L	4.00	ND	80	80-120			
Post Spike (B1D0679-PS5)	Source: 1040743-05									
Mercury	3.8		ug/L	4.00	0.21	89	80-120			



Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1040743 Moncks Corner, SC 29461 04/22/21 14:29 Reported:

Total Metals Quality Control Summary

Post Spike (BID0679-PS6) Source: 1040743-07	Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Moreury 3.5	Batch B1D0679 - EPA 7470A										
Post Spike (BID0679-PS7) Source: 1040743-07	Post Spike (B1D0679-PS6)	Source: 1040743-06									
Mercury 3.6 ug/L 4.00 ND 89 80-120	Mercury	3.5		ug/L	4.00	ND	86	80-120			
Post Spike (B1D0679-PS8) Source: 1040743-10	Post Spike (B1D0679-PS7)	Source: 1040743-07									
Mercury 3.9 ug/L 4.00 ND 98 80-120	Mercury	3.6		ug/L	4.00	ND	89	80-120			
Post Spike (B1D0679-PS9) Source: 1040743-11	Post Spike (B1D0679-PS8)	Source: 1040743-10									
Mercury 3.8 ug/L 4.00 ND 96 80-120	Mercury	3.9		ug/L	4.00	ND	98	80-120			
Post Spike (B1D0679-PSA) Source: 1040743-12	Post Spike (B1D0679-PS9)	Source: 1040743-11									
Mercury 3.7	Mercury	3.8		ug/L	4.00	ND	96	80-120			
Post Spike (B1D0679-PSB) Source: 1040743-13	Post Spike (B1D0679-PSA)	Source: 1040743-12									
Mercury 3.8 ug/L 4.00 ND 93 80-120	Mercury	3.7		ug/L	4.00	ND	91	80-120			
Blank (B1D0837 - EPA 3005A Blank (B1D0837-BLK1)	Post Spike (B1D0679-PSB)	Source: 1040743-13									
Blank (B1D0837-BLK1)	Mercury	3.8		ug/L	4.00	ND	93	80-120			
Boron ND 15 ug/L	Batch B1D0837 - EPA 3005A										
LCS (B1D0837-BS1) Boron 210 15 ug/L 250 82 80-120	Blank (B1D0837-BLK1)										
Boron 210 15 ug/L 250 82 80-120	Boron	ND	15	ug/L							
LCS Dup (B1D0837-BSD1) Boron 240 15 ug/L 250 95 80-120 14 20 Matrix Spike (B1D0837-MS1) Source: 1040743-03 Boron 1800 75 ug/L 1250 850 80 75-125 Matrix Spike (B1D0837-MS2) Source: 1040743-12	LCS (B1D0837-BS1)										
Boron 240 15 ug/L 250 95 80-120 14 20 Matrix Spike (B1D0837-MS1) Source: 1040743-03 Boron 1800 75 ug/L 1250 850 80 75-125 Matrix Spike (B1D0837-MS2) Source: 1040743-12	Boron	210	15	ug/L	250		82	80-120			
Matrix Spike (B1D0837-MS1) Source: 1040743-03 Boron 1800 75 ug/L 1250 850 80 75-125 Matrix Spike (B1D0837-MS2) Source: 1040743-12	LCS Dup (B1D0837-BSD1)										
Boron 1800 75 ug/L 1250 850 80 75-125 Matrix Spike (B1D0837-MS2) Source: 1040743-12	Boron	240	15	ug/L	250		95	80-120	14	20	
Matrix Spike (B1D0837-MS2) Source: 1040743-12	Matrix Spike (B1D0837-MS1)	Source: 1040743-03									
	Boron	1800	75	ug/L	1250	850	80	75-125			
Boron 4600 75 ug/L 1250 3300 105 75-125	Matrix Spike (B1D0837-MS2)	Source: 1040743-12									
	Boron	4600	75	ug/L	1250	3300	105	75-125			



Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1D0837 - EPA 3005A										
Matrix Spike Dup (B1D0837-MSD1)	Source: 1040743-03									
Boron	2000	75	ug/L	1250	850	93	75-125	8	20	
Matrix Spike Dup (B1D0837-MSD2)	Source: 1040743-12									
Boron	4600	75	ug/L	1250	3300	102	75-125	0.9	20	
Post Spike (B1D0837-PS1)	Source: 1040743-03									
Boron	3200	75	ug/L	2500	850	95	75-125			
Post Spike (B1D0837-PS2)	Source: 1040743-12									
Boron	5900	75	ug/L	2500	3300	105	75-125			



Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1D0590	1040743-01	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-01	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-02	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-02	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-03	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-03	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-04	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-04	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-05	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-05	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-06	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-06	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-07	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-07	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-08	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-09	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-10	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-10	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-11	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-11	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-12	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-12	04/14/2021 13:25	MTH	
EPA 3005A	B1D0590	1040743-13	04/14/2021 13:25	MTH	
EPA 3005A	B1D0837	1040743-13	04/14/2021 13:25	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1D0679	1040743-01	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-02	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-03	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-04	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-05	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-06	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-07	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-10	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-11	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-12	04/15/2021 13:11	ELN	
EPA 7470A	B1D0679	1040743-13	04/15/2021 13:11	ELN	

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Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

X Result subject to sample matrix interference. Reporting limit has been adjusted where applicable.

Chain of Custody

1040743



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

	ner Email,	Report Recip			e Results N	eeded b ,	y:	10.1				Unit #:			Rerun reques	t for a	any fl	agge	d Q
1040	***************************************	wsantee	cooper.cor	n	_/			[2]	56+	1_11	102.0	9.G0	31 / 36	500	Yes	No			
Labwor (Interno only)	ks ID#	Sample Locat Description	ion/	Collection Date	Collection Time	Sample Collector	Fotal # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Preservative (see below)		Co Method # Reporting li Misc. sampl Any other no	e info	3		Analys		
AF-00	633	CGYP-4		The Mariane (1)	a on the state of	DEW/		8 5		2300	2				01	20	-	Z Z	+
70,00	000			4/7/2	21 1106	MG	,	.	G	GW	2-	D, L	i, MO - (6010	-01	X	X	X	X
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Relingu	ished by:	Employee#	Date	Time	Receive	d bu	l cm	alavaa #		0.1.			Sampl	e Recei	ving (Internal l	Jse On	(v)		
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	ished by:	Employee#	Date	Time	Receive	d by:	Em	ployee #	11/	14/ >- Date	0	9 9.0 Time							
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		TAT C (-III)	ER PER								- 1		Date	ime/in	it for preserva	tive:			
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□ AI	□Fe	□ Se	TO		DBTEX		O V	Vallboa			D U	ltimate			imonia	True	ss. Oil		
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В	□ Li	□ Sr		3-N	O VOC			O AIM			ROULD STEEL SHAD	Ash Sulfur			Carbon neral				
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Customer Email/Report Recipient:

Chain of Custody



Santee Cooper One Riverwood Drivo Moneks Corner, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

		Report Recip	ient:	Date	Results N	eeded b	у:		P	roject/	Task/	Unit #:		Re	run request	for a	ny fla	egge	I Q
LCW	ILLIA	@santee	cooper.con	n				121	567	11	102-0	7. GØI		500	Yes	No			
																Ē	Analysi	is Gro	īΒ
Labwork (Internal only)		Sample Locati Description	ion/	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	• I	Com Method # Reporting lim Misc. sample Any other not	info		取	Į.	Mo	Ha
AF-000	693	WLF-AZ-	-6	4/8/2	1 1527	DEN	l	P	G	GW	2	B, L	i, Mo 6	010	-0 l0	X	×	X	×
AF 000	694	WLF-AZ-	6 DUP	1	1532	-			· ·	- Address of the same	-	Hg -	7470A	**************************************	11			1	1
AF 006	595	WAP-17			1331								***************************************	***************************************	1/2				\dagger
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Relinquis		Employee#	Date	Time	Receive		En	nployee #		Date	1	Time	Correc	t pH:	Yes No				
fed ex			4/14/21	0920	Kledolo	, Rose		***************************************	97	14/21	d	1920	Preser	vative L	ot#:				
Relinquis	shed by:	Employee#	Date	Time	Receive	d by:	En	nployee #		Date		Time							
	□ 3.0 000	CAT C (-B)											Date/T	ime/Init	for preserva	tive:			Par annual control
□ Ag	Cu	TALS (all)		rients	MIS	<u>C.</u>			sum	1		Coa	al	Fly	ash		Oil		
O Al	□ Fe	□ Se	Tio		☐ BTEX ☐ Napthalen		0	Wallboa	rd um(<i>all</i>			ltimate		□ Amn	Administrative (Control of Control of Contro	Tran	s. Oil	Qual.	
□ As	□K	□ Sn		TPO4	□ THM/HA			below				□ % Moi □ Ash	isture	E LOI	ırbon	∃ Ca	Meiste ler		
□B	□ Li	□Sr	NE	BaN	□ VOC □ Oil & Gre	ase		O AIM				Sulfur		□ % Ca		II Ac	idity		
□Ba	□Mg	☐ Ti	□ F		DE. Coli			100 Total				BTUs		A	nalysis	O (IF)			
□ Be	□ Mn	C TI	NG	2.	☐ Total Coli	form		☐ Solut	ble Mei	als		□ Volatil □ CHN	le Matter	□ Sieve			solved		
∃ Ca	□Мо	D V	Br		□ pH □ Dissolved	As		O Purit			11/2/24/7/25	er Tests		□ % M	oisture		l Oil stipen		
□ Cd	□ Na	□ Zn	- NO	3	☐ Dissolved☐ Rad 226			Sulfi			OX	RF Scan		NP	DES	L Mc	tals in	oil	
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01	LUITU	LCIVI					9	Sulfur						□ TSS		GOF	ER.		



Revised February 2018

Sample Receipt Verification

Client: Sar	ntee Cooper Re	Date eceived:	4/	14/21		Work Order: ¹⁰⁴⁰⁷⁴³
Carrier Name:	Client FedEx UPS	US 1	Mail		Cou	
	Tracking Number: 80403					_
Receipt Crite	eria		Y e s	N o	N A	Comments
Shipping conta	niner / cooler intact?		Х			Damaged Leaking Other:
Custody seals i	intact?				Х	
COC included	with samples?		Х			
COC signed w	hen relinquished and received?		Х			
Sample bottles	intact?		Х			Damaged Leaking Other:
Sample ID on	COC agree with label on bottle(s)?		Х			
Date / time on	COC agree with label on bottle(s)?		Х			
Number of bot	tles on COC agrees with number of bottles rec	ceived?	Х			
Samples receiv	ved within holding time?		Х			
Sample volume	e sufficient for analysis?		Х			
VOA vials free	e of headspace (<6mm bubble)?				Х	
Samples cooled	d? Temp at receipt recorded on COC Temp measured with IR thermometer - SN: 970	050067			Х	Ice Cold Packs Dry Ice None
Note: Samples	ring pH preservation at proper pH? for metals analysis may be preserved upon receipt in the for O&G and VOA analysis – preservation checked at be	lab.	Х			
Samples dechlor the time of sam	orinated for parameters requiring chlorine rem inple collection? e checked at bench for samples requiring Bacterial, VOA	noval at			х	
	If in-house pre	eservation	used	– re	cord	Lot #
HCL	1	H ₃ P				
H ₂ SO ₄		NaC	ΟH			
HNO_3		Oth	ner			
Comments:						
Were non-cor	nformance issues noted at sample receipt?	Vec	5 01	<u> </u>	No)
	ance issue other than noted above:	100	, 01		<u></u>	
Revised February	2018				Co	ompleted by: KRU

Completed by:_____





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Ground Water Project: Work Order: 1051017

Received: 05/19/2021 09:10

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 May 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 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

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water **Work Order:** 1051017

Received: 05/19/2021 09:10

Sample Number	Sample Description	Matrix	Sampled	Type
1051017-01	AF03568 CGYP-4	Ground Water	05/13/21 14:39	Grab
1051017-02	AF03569 CGYP-4 DUP	Ground Water	05/13/21 14:44	Grab
1051017-03	AF03570 CGYP-5	Ground Water	05/13/21 16:00	Grab
1051017-04	AF03571 CGYP-6	Ground Water	05/13/21 16:55	Grab
1051017-05	AF03572 WLF-A2-6	Ground Water	05/13/21 11:20	Grab
1051017-06	AF03573 WLF-A2-6 DUP	Ground Water	05/13/21 11:25	Grab



 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1051017

 Moncks Corner, SC 29461
 Reported:
 06/01/21 14:19

Sample Data

Sample Number

1051017-01

Sample Description

AF03568 CGYP-4 collected on 05/13/21 14:39

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	05/27/21 11:42	EPA 7470A	S7	MLR	B1E1218
Boron	8000	75	ug/L	5.00	05/25/21 14:10	EPA 6010D		MLR	B1E0974
Lithium	58	10	ug/L	1.00	05/25/21 15:23	EPA 6010D		MLR	B1E0975
Molybdenum	ND	10	ug/L	1.00	05/25/21 15:23	EPA 6010D		MLR	B1E0975

Sample Number

1051017-02

Sample Description AF03569 CGYP-4 DUP collected on 05/13/21 14:44

Parameter	Result	Reporting Limit	Units	nits DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	05/27/21 11:53	EPA 7470A	S7	MLR	B1E1218
Boron	8000	75	ug/L	5.00	05/25/21 14:14	EPA 6010D		MLR	B1E0974
Lithium	59	10	ug/L	1.00	05/25/21 15:26	EPA 6010D		MLR	B1E0975
Molybdenum	ND	10	ug/L	1.00	05/25/21 15:26	EPA 6010D		MLR	B1E0975

Sample Number Sample Description 1051017-03

AF03570 CGYP-5 collected on 05/13/21 16:00

Parameter	Result	Reporting Limit	Units DF		Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	05/27/21 11:56	EPA 7470A	S7	MLR	B1E1218
Boron	2900	75	ug/L	5.00	05/25/21 13:40	EPA 6010D		MLR	B1E0974
Lithium	59	10	ug/L	1.00	05/25/21 15:07	EPA 6010D		MLR	B1E0975
Molybdenum	ND	10	ug/L	1.00	05/25/21 15:07	EPA 6010D		MLR	B1E0975

Sample Number

1051017-04

Sample Description AF03571 CGYP-6 collected on 05/13/21 16:55

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	05/27/21 11:59	EPA 7470A	S7	MLR	B1E1218
Boron	6900	75	ug/L	5.00	05/25/21 14:18	EPA 6010D		MLR	B1E0974
Lithium	130	10	ug/L	1.00	05/25/21 15:30	EPA 6010D		MLR	B1E0975
Molybdenum	ND	10	ug/L	1.00	05/25/21 15:30	EPA 6010D		MLR	B1E0975

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Sample Number 1051017-05

Sample Description AF03572 WLF-A2-6 collected on 05/13/21 11:20

Parameter	Result	Reporting Limit	Units	DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	05/27/21 12:02	EPA 7470A		MLR	B1E1218
Boron	420	75	ug/L	5.00	05/25/21 14:02	EPA 6010D		MLR	B1E0974
Lithium	32	10	ug/L	1.00	05/25/21 15:34	EPA 6010D		MLR	B1E0975
Molybdenum	ND	10	ug/L	1.00	05/25/21 15:34	EPA 6010D		MLR	B1E0975

Sample Number

1051017-06

Sample Description AF03573 WLF-A2-6 DUP collected on 05/13/21 11:25

Parameter	Result	Reporting Limit	Units	its DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	05/27/21 12:04	EPA 7470A		MLR	B1E1218
Boron	410	75	ug/L	5.00	05/25/21 14:06	EPA 6010D		MLR	B1E0974
Lithium	33	10	ug/L	1.00	05/25/21 15:38	EPA 6010D		MLR	B1E0975
Molybdenum	ND	10	ug/L	1.00	05/25/21 15:38	EPA 6010D		MLR	B1E0975



 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1051017

 Moncks Corner, SC 29461
 Reported:
 06/01/21 14:19

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1E0974 - EPA 3005A										
Blank (B1E0974-BLK1)										
Boron	ND	15	ug/L							
LCS (B1E0974-BS1)										
Boron	250	15	ug/L	250		98	80-120			
Matrix Spike (B1E0974-MS1)	Source: 1051017-03									
Boron	4200	75	ug/L	1250	2900	106	75-125			
Matrix Spike Dup (B1E0974-MSD1)	Source: 1051017-03									
Boron	4200	75	ug/L	1250	2900	103	75-125	1	20	
Post Spike (B1E0974-PS1)	Source: 1051017-03									
Boron	5500	75	ug/L	2500	2900	106	75-125			
Batch B1E0975 - EPA 3005A										
Blank (B1E0975-BLK1)										
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1E0975-BS1)										
Lithium	281	10	ug/L	250		113	80-120			
Molybdenum	240	10	ug/L	250		97	80-120			
LCS Dup (B1E0975-BSD1)										
Lithium	280	10	ug/L	250		112	80-120	0.5	20	
Molybdenum	250	10	ug/L	250		98	80-120	1	20	
Matrix Spike (B1E0975-MS1)	Source: 1051017-03									
Lithium	362	10	ug/L	250	59	122	75-125			
Molybdenum	250	10	ug/L	250	ND	98	75-125			
Post Spike (B1E0975-PS1)	Source: 1051017-03									
Lithium	0.597		mg/L	0.500	ND	108	75-125			
Molybdenum	0.49		mg/L	0.500	ND	97	75-125			

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Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1E1218 - EPA 7470A										
Blank (B1E1218-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1E1218-BS1)										
Mercury	5.0	0.20	ug/L	5.00		99	80-120			
LCS Dup (B1E1218-BSD1)										
Mercury	5.1	0.20	ug/L	5.00		101	80-120	2	20	
Matrix Spike (B1E1218-MS1)	Source: 1051017-01									
Mercury	4.1	0.20	ug/L	5.00	ND	82	75-125			
Matrix Spike Dup (B1E1218-MSD1)	Source: 1051017-01									
Mercury	4.1	0.20	ug/L	5.00	ND	83	75-125	1	20	
Post Spike (B1E1218-PS1)	Source: 1051017-01									
Mercury	3.5		ug/L	4.00	ND	87	80-120			S7
Post Spike (B1E1218-PS2)	Source: 1051017-02									
Mercury	3.1		ug/L	4.00	ND	76	80-120			S7
Post Spike (B1E1218-PS3)	Source: 1051017-03									
Mercury	2.9		ug/L	4.00	ND	72	80-120			S7
Post Spike (B1E1218-PS4)	Source: 1051017-04									
Mercury	2.9		ug/L	4.00	ND	71	80-120			S7
Post Spike (B1E1218-PS5)	Source: 1051017-05									
Mercury	3.4		ug/L	4.00	ND	83	80-120			
Post Spike (B1E1218-PS6)	Source: 1051017-06									
Mercury	3.3		ug/L	4.00	ND	82	80-120			

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Santee Cooper Ground Water Project: 1 Riverwood Dr. 1051017 Work Order: Moncks Corner, SC 29461 Reported: 06/01/21 14:19

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1E0974	1051017-01	05/24/2021 09:36	MTH	
EPA 3005A	B1E0975	1051017-01	05/20/2021 09:49	CAL	
EPA 3005A	B1E0974	1051017-02	05/24/2021 09:36	MTH	
EPA 3005A	B1E0975	1051017-02	05/20/2021 09:49	CAL	
EPA 3005A	B1E0974	1051017-03	05/24/2021 09:36	MTH	
EPA 3005A	B1E0975	1051017-03	05/20/2021 09:49	CAL	
EPA 3005A	B1E0974	1051017-04	05/24/2021 09:36	MTH	
EPA 3005A	B1E0975	1051017-04	05/20/2021 09:49	CAL	
EPA 3005A	B1E0974	1051017-05	05/24/2021 09:36	MTH	
EPA 3005A	B1E0975	1051017-05	05/20/2021 09:49	CAL	
EPA 3005A	B1E0974	1051017-06	05/24/2021 09:36	MTH	
EPA 3005A	B1E0975	1051017-06	05/20/2021 09:49	CAL	
EPA 7470A Mercury Digestion					
EPA 7470A	B1E1218	1051017-01	05/26/2021 13:14	ELN	
EPA 7470A	B1E1218	1051017-02	05/26/2021 13:14	ELN	
EPA 7470A	B1E1218	1051017-03	05/26/2021 13:14	ELN	
EPA 7470A	B1E1218	1051017-04	05/26/2021 13:14	ELN	
EPA 7470A	B1E1218	1051017-05	05/26/2021 13:14	ELN	
EPA 7470A	B1E1218	1051017-06	05/26/2021 13:14	ELN	



Data Qualifiers and Definitions

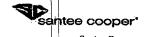
ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

S7 Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Chain of Custody $\log 5 \log 17$



Customer Email	/Report Recipi	ent:	__ Date	Results No	eeded by	y:		Pı	roject/	Task/	Unit #:	Re	run request	for	any f	lagged Q0
LCWILLIA	@santeed	cooper.com	-,		<u> </u>		121	567	<u> ال</u>	102.	09. GØI	136500	Yes	No		
			`					· ·			â				<u>Analy</u>	sis Group
Labworks ID # (Internal use only)	Sample Locatic Description	on/.	Collection Date	Collection Time	Sample Collector	Total # of containers	Bottle type: (Glass- 'G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	Préservative (see	• Rep	Comments thod # conting limit conting limit conting limit conting limit		E C WO II	Ca / / /	
AF-03568	CG7P-4		5/13/2	1 1439	MDG	{	P	G	GW	2	-6	1		×		
AF-03569	CGYP-4	DUP		1444							-0	<u>ب</u>				
AF03570	CEYP-5			1600		<u>. </u>			<u> </u>		~0	•				
A+03571	CGYP-6		11	(622							- 0	Ÿ			-	
AF03572	WLF-A2-	6		1120							- 8	5	,			
AF03573	WLF- A-2-6	bup		1125	1	<u> </u>		1	1	1	-0	6				
											<u> </u>					
													·			
			ļ													
I	·															
Relinquished by:	Employee#	– Date 🖘 –	. Time	Receiv	ed by: 🚊 .	Er	nplöyee	#2-1-2	Date		Time	Sample Recei	ving (Internal U	se o	nly)	
Sproun	35594	5/18/2]	15∞	feder	۲.				1186		1500		₹1.0 1	niti	 :- -	
Relinquished by:	Employee#	Date	Time	Receiv	ed by:	Er	nployee	#	Date	生真	Time/	Correct pH:				
#edex	P. 1882 14 3	5/19/21	0910		Hose		The Co		0/10/	_	<i>७५</i> [४	Preservative	Lot#:			
Relinquished by:	Employee#	Date	Time	Receiv	ed by:	THE THE	nployee	###	Date	7	Time	Date/Time/Ir	it for preserva	tive:		i
□ ME □ Ag □ Cu □ Al □ Fe □ As □ K □ Ba □ Li □ Ba □ Dm □ Ca □ Mc □ Cd □ Na □ Co □ Ni □ Cr □ Pb	□ Se □ Sn □ Si □ Ti □ Ti □ Ti □ Ti □ Ti	Nut Dio Dio Dio Dio Dio Dio Dio Dio Dio Dio	C JIRO4 3 N 2 2	MIS BTEX Napthale THM/H VOC OII & Gn E Coli Total Col pH Dissolvec Rad 226 Rad 228 ReB	ne AA ease liform l As l Fe		Wallbook Gyp Gyp Delo: In All In Tol In Soli In Soli In Soli In Soli	psun ard sum(ar a) M S suberi Moistum incs aridis			Coal Ultimate □ % Moist □ Ash □ Sulfur □ BTUs □ Volatile □ CHN ther Tests: XKF Scan HGI ineness Particulate Ma	Matter Tool	Annivini vici ydranice BDES:			IIQuel. Liure y Listacreft ved(Gassa II sinal Lincil
			- Anna Carlotte		<u> </u>						<u> </u>	See		-:-		



Revised February 2018

Sample Receipt Verification

Client: Santee Cooper	Date Received:	05,	/19/2 ⁻	1	Work Order:
Carrier Name: Client FedEx UP	S US I	Mail		Cot	urier Field Services Other:
Tracking Number: 8153679	915147				_
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Х			Damaged Leaking Other:
Custody seals intact?				Х	
COC included with samples?		Х			
COC signed when relinquished and received?		Х			
Sample bottles intact?		Х			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Х			
Date / time on COC agree with label on bottle(s)?		Х			
Number of bottles on COC agrees with number of bottle	es received?	Х			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Х			
VOA vials free of headspace (<6mm bubble)?				Χ	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer - SN	N: 97050067	Х			Ice Cold Packs Dry Ice None
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt i Note: Samples for O&G and VOA analysis – preservation checked	in the lab.	Х			
Samples dechlorinated for parameters requiring chlorine the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, analysis.	e removal at			х	
If in-hous	e preservation	used	– re	cord	Lot#
HCL	H ₃ P				
H ₂ SO ₄ HNO ₃	NaC Oth				
Comments:			l		
Were non-conformance issues noted at sample rece	eipt? Yes	s or	(1	VO)	
Non-Conformance issue other than noted above:					

Completed by:____

Page 10 of 10





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Ground Water Project: Work Order: 1070855

Received: 07/15/2021 10:00

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 July 15, 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

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





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: 1070855

Received: 07/15/2021 10:00

Sample Number	Sample Description	Matrix	Sampled	Type
1070855-01	AF07267 CGYP-1	Ground Water	07/07/21 10:31	Grab
1070855-02	AF07268 CGYP-2	Ground Water	07/07/21 11:28	Grab
1070855-03	AF07269 CGYP-2 Dup	Ground Water	07/07/21 11:33	Grab
1070855-04	AF07270 CGYP-3	Ground Water	07/07/21 13:38	Grab
1070855-05	AF07271 CGYP-4	Ground Water	07/08/21 10:26	Grab
1070855-06	AF07272 CGYP-5	Ground Water	07/08/21 11:24	Grab
1070855-07	AF07273 CGYP-6	Ground Water	07/08/21 12:21	Grab



Sample Data

Sample Number

1070855-01

Sample Description

AF07267 CGYP-1 collected on 07/07/21 10:31

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	07/16/21 15:03	EPA 7470A		NAR	B1G0792
Boron	9400	75	ug/L	5.00	07/14/21 17:16	EPA 6010D		MLR	B1G0597
Lithium	14	10	ug/L	1.00	07/14/21 20:24	EPA 6010D		MLR	B1G0595
Molybdenum	ND	10	ug/L	1.00	07/14/21 20:24	EPA 6010D		MLR	B1G0595

Sample Number

1070855-02

Sample Description AF07268 CGYP-2 collected on 07/07/21 11:28

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	07/16/21 15:06	EPA 7470A		NAR	B1G0792
Boron	1300	75	ug/L	5.00	07/14/21 17:20	EPA 6010D		MLR	B1G0597
Lithium	15	10	ug/L	1.00	07/14/21 20:28	EPA 6010D		MLR	B1G0595
Molybdenum	ND	10	ug/L	1.00	07/14/21 20:28	EPA 6010D		MLR	B1G0595

Sample Number Sample Description 1070855-03

AF07269 CGYP-2 Dup collected on 07/07/21 11:33

Parameter	Result	Reporting Limit			Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	07/16/21 15:20	EPA 7470A		NAR	B1G0792
Boron	1300	75	ug/L	5.00	07/14/21 17:24	EPA 6010D		MLR	B1G0597
Lithium	14	10	ug/L	1.00	07/14/21 20:32	EPA 6010D		MLR	B1G0595
Molybdenum	ND	10	ug/L	1.00	07/14/21 20:32	EPA 6010D		MLR	B1G0595

Sample Number

1070855-04

Sample Description AF07270 CGYP-3 collected on 07/07/21 13:38

Parameter	Result	Reporting Limit Units DF		DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	07/16/21 15:23	EPA 7470A		NAR	B1G0792
Boron	17000	75	ug/L	5.00	07/14/21 17:27	EPA 6010D		MLR	B1G0597
Lithium	56	10	ug/L	1.00	07/14/21 20:36	EPA 6010D		MLR	B1G0595
Molybdenum	ND	10	ug/L	1.00	07/14/21 20:36	EPA 6010D		MLR	B1G0595

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Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported:

1070855 07/20/21 12:22

Sample Number

1070855-05

Sample Description

AF07271 CGYP-4 collected on 07/08/21 10:26

Parameter	Result	Reporting Limit	Units DF Analyzed		Method	Flag	Analyst	Batch	
Total Metals									
Mercury	ND	0.20	ug/L	1.00	07/16/21 15:26	EPA 7470A		NAR	B1G0792
Boron	7700	75	ug/L	5.00	07/14/21 17:31	EPA 6010D		MLR	B1G0597
Lithium	58	10	ug/L	1.00	07/14/21 20:40	EPA 6010D		MLR	B1G0595
Molybdenum	ND	10	ug/L	1.00	07/14/21 20:40	EPA 6010D		MLR	B1G0595

Sample Number

1070855-06

AF07272 CGYP-5 collected on 07/08/21 11:24 **Sample Description**

Parameter	Result	Reporting Limit	Units	nits DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	07/16/21 15:28	EPA 7470A		NAR	B1G0792
Boron	2900	75	ug/L	5.00	07/14/21 16:57	EPA 6010D		MLR	B1G0597
Lithium	58	10	ug/L	1.00	07/14/21 20:05	EPA 6010D		MLR	B1G0595
Molybdenum	ND	10	ug/L	1.00	07/14/21 20:05	EPA 6010D		MLR	B1G0595

Sample Number **Sample Description** 1070855-07

AF07273 CGYP-6 collected on 07/08/21 12:21

Parameter	Result	Reporting Limit			Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	07/16/21 15:31	EPA 7470A		NAR	B1G0792
Boron	6700	75	ug/L	5.00	07/14/21 17:35	EPA 6010D		MLR	B1G0597
Lithium	120	10	ug/L	1.00	07/14/21 20:43	EPA 6010D		MLR	B1G0595
Molybdenum	ND	10	ug/L	1.00	07/14/21 20:43	EPA 6010D		MLR	B1G0595



Santee Cooper Project: Ground Water 1 Riverwood Dr. 1070855 Work Order: Moncks Corner, SC 29461 07/20/21 12:22 Reported:

Total Metals Quality Control Summary

			Spike Source		%REC		RPD			
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1G0595 - EPA 200.7 N	Tod									
Blank (B1G0595-BLK1)										
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1G0595-BS1)										
Lithium	259	10	ug/L	250		104	80-120			
Molybdenum	240	10	ug/L	250		97	80-120			
LCS Dup (B1G0595-BSD1)										
Lithium	258	10	ug/L	250		103	80-120	0.6	20	
Molybdenum	250	10	ug/L	250		98	80-120	2	20	
Matrix Spike (B1G0595-MS1)	Source: 1070855-06									
Lithium	330	10	ug/L	250	58	109	75-125			
Molybdenum	240	10	ug/L	250	ND	96	75-125			
Matrix Spike Dup (B1G0595-MSD1)	Source: 1070855-06									
Lithium	340	10	ug/L	250	58	113	75-125	3	20	
Molybdenum	250	10	ug/L	250	ND	99	75-125	3	20	
Post Spike (B1G0595-PS1)	Source: 1070855-06									
Lithium	0.589		mg/L	0.500	ND	106	75-125			
Molybdenum	0.50		mg/L	0.500	ND	99	75-125			
Batch B1G0597 - EPA 200.7 N	Tod									
Blank (B1G0597-BLK1)										
Boron	ND	15	ug/L							
LCS (B1G0597-BS1)										
Boron	250	15	ug/L	250		99	80-120			
LCS Dup (B1G0597-BSD1)										
Boron	250	15	ug/L	250		100	80-120	0.6	20	

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 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1070855

 Moncks Corner, SC 29461
 Reported:
 07/20/21 12:22

Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1G0597 - EPA 200.7 M	Iod									
Matrix Spike (B1G0597-MS1)	Source: 1070855-06									
Boron	4100	75	ug/L	1250	2900	97	75-125			
Matrix Spike Dup (B1G0597-MSD1)	Source: 1070855-06									
Boron	4100	75	ug/L	1250	2900	96	75-125	0.06	20	
Post Spike (B1G0597-PS1)	Source: 1070855-06									
Boron	5400	75	ug/L	2500	2900	102	75-125			
Batch B1G0792 - EPA 7470A										
Blank (B1G0792-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1G0792-BS1)										
Mercury	4.8	0.20	ug/L	5.00		96	80-120			
LCS Dup (B1G0792-BSD1)										
Mercury	4.9	0.20	ug/L	5.00		97	80-120	1	20	
Matrix Spike (B1G0792-MS1)	Source: 1070855-02									
Mercury	4.2	0.20	ug/L	5.00	ND	85	75-125			
Post Spike (B1G0792-PS1)	Source: 1070855-02									
Mercury	3.2		ug/L	4.00	ND	80	80-120			



Santee Cooper Project: Ground Water 1 Riverwood Dr. 1070855 Work Order: Moncks Corner, SC 29461 07/20/21 12:22 Reported:

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 200.7 M Digestion					
EPA 200.7 Mod	B1G0595	1070855-01	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0597	1070855-01	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0595	1070855-02	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0597	1070855-02	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0595	1070855-03	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0597	1070855-03	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0595	1070855-04	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0597	1070855-04	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0595	1070855-05	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0597	1070855-05	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0595	1070855-06	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0597	1070855-06	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0595	1070855-07	07/14/2021 11:39	MTH	
EPA 200.7 Mod	B1G0597	1070855-07	07/14/2021 11:39	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1G0792	1070855-01	07/15/2021 12:40	CAL	
EPA 7470A	B1G0792	1070855-02	07/15/2021 12:40	CAL	
EPA 7470A	B1G0792	1070855-03	07/15/2021 12:40	CAL	
EPA 7470A	B1G0792	1070855-04	07/15/2021 12:40	CAL	
EPA 7470A	B1G0792	1070855-05	07/15/2021 12:40	CAL	
EPA 7470A	B1G0792	1070855-06	07/15/2021 12:40	CAL	
EPA 7470A	B1G0792	1070855-07	07/15/2021 12:40	CAL	



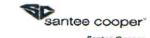
Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

Chain of Custody



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

		/Report Recipi									sults Needed by: Project/Task/Unit #: Rerun request for a				iny flaggi	
LCWI	LUA	@santee	cooper.con	n	<i>J</i>	/		121	121567 JM02.09.Gp1 36500 Yes							Analysis Gr
Labwork (Internal only)	Marie Control of the	Sample Location Description	on/	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)			mments imit le info	B, Li, Mo, Ha	(/ /
F072	267	CGYP-1		7/7/21	(PE)	BRT/CUS	l	P	G	GW	2				×	
F072	.68	CGYP-2		1	1128		-	-		1	prefetoni				1	
F072	269	CGYP-2 DI	UP		1133											
F072	70	CG1P-3		- Control of the Cont	1338			manual	1		-					
F-072	94	CGYP-4		7/8/21	1026	MOGRA		Heliphonores	1	-	**				X	
F072	7-2	CGYP-5		1	1124			CO.							- Constant	
F072	73	CGYP-6			1221			- Lance	1	1		-			1	
					ia.											
Relinquis	shed by:	Employee#	Date	Time	Recei	red by:	En	ployee i	#	Date		Time	Samp	ole Receiving (Interno	Use On	
Amour	un	35594	7/13/21	1500									I E W	ir (°C):	Initial	:
Relinquis	shed by:	Employee#	Date	Time	Receiv	ved by:	En	ployee #	•	Date		Time		ect pH: Yes Nervative Lot#:	0	
Relinquis	shed by:	Employee#	Date	Time	Receiv	red by:	Em	ployee #		Date		Time				
	□ ME	TALS (all)												Time/Init for preser	vative:	
Ag	□ Cu	□ Sb	I TO	rients	MI	SC.		100 mm	osum			Coa	<u> </u>	<u>Flyash</u>		<u>Oil</u>
Al	□ Fe	□ Se	D0		☐ BTEX ☐ Napthale	ene		Wallboa Gyps	um(<i>all</i>			Itimate Mois	ture	☐ Ammonia ☐ LOI		nx. Oil Qua Moissure
As	□ K	□ Sn	O TP	TPO4	□ THM/H. □ VOC	AA .		below	"			□ Ash		□ % Carbon	DO	olar
В	□ Li	□ Sr	F	13-N	□ Oil & Gi	rease		O AIN				Sulfur		☐ Mineral		
Ba	□Mg	Anna Carlo Company	CI		☐ E. Coli ☐ Total Co	liform		□ Tota	l metals		A CHISONELE	☐ BTUs☐ Volatile	Matter	Analysis D Sieve		
Ве	□ Mn		UNC		□рН				ble Mer			CHN		□ % Moisture	□ Use	d Oil
Ca	□Мо	D V	Br		☐ Dissolve			Sulfi	loisture		ESSENDED HAVE	RF Scan				
Cd	□ Na	□ Zn	/ so		☐ Rad 226			□pH			□ He	GI		NPDES	U	to Cd.Cr.Ni
Co	□Ni	☐ Hg			☐ Rad 228 ☐ PCB			Chlo	rides cle Size			neness rticulate M	latter	□ Oil & Grease □ As		
Cr		□ CrVI	The second second		The second second		1	a Gill	TIL DIZE		11 - 10	resourate IV	i u tivi	□ TSS	GO	



Revised February 2018

Sample Receipt Verification

Cliente Sentes Cooper	Date Received:	07	/13/2	021	Work Order: 1070855
Client: Santee Cooper	_ Received.		/13/2	021	Older
Carrier Name: Client FedEx U	PS US I	Mail		Cou	urier Field Services Other:
Tracking Number: 81	5367915272				_
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Х			Damaged Leaking Other:
Custody seals intact?				Х	
COC included with samples?		Х			
COC signed when relinquished and received?		Х			
Sample bottles intact?		Х			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Х			
Date / time on COC agree with label on bottle(s)?		Х			
Number of bottles on COC agrees with number of bott	les received?	Х			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Х			
VOA vials free of headspace (<6mm bubble)?				Х	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer -	SN: 97050067	Х			Ice Cold Packs Dry Ice None
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receip Note: Samples for O&G and VOA analysis – preservation check	t in the lab.	Х			
Samples dechlorinated for parameters requiring chloring the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacteria analysis.	ne removal at	х			
If in-hou	ise preservation	used	– re	cord	Lot#
HCL	H ₃ P				
H ₂ SO ₄	NaC Oth				
Comments:					
Comments.					
Were non-conformance issues noted at sample rec	ceipt? Yes	or	. 1	No	
Non-Conformance issue other than noted above:	· •	-			

Completed by: CSG





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Ground Water Project: Work Order: 1090593

Received: 09/09/2021 10:30

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 September 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

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water
Work Order: 1090593

Received: 09/09/2021 10:30

Sample Number	Sample Description	Matrix	Sampled	Type
1090593-01	AF13775 CGYP-5	Ground Water	08/31/21 10:01	Grab
1090593-02	AF13776 CGYP-6	Ground Water	08/31/21 11:02	Grab
1090593-03	AF13777 WLF-A2-6	Ground Water	09/01/21 12:40	Grab
1090593-04	AF13778 WLF-A2-6 Dup	Ground Water	09/01/21 12:45	Grab
1090593-05	AF13773 CGYP-4	Ground Water	09/01/21 09:04	Grab
1090593-06	AF13774 CGYP-4 Dup	Ground Water	09/01/21 09:09	Grab



Sample Data

Sample Number

1090593-01

Sample Description

AF13775 CGYP-5 collected on 08/31/21 10:01

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	09/16/21 10:10	EPA 7470A	S7	ICP	B1I0534
Boron	3200	15	ug/L	1.00	09/10/21 19:43	EPA 6010D		MTH	B1I0438
Lithium	62	10	ug/L	1.00	09/10/21 19:43	EPA 6010D		MTH	B1I0438
Molybdenum	ND	10	ug/L	1.00	09/10/21 19:43	EPA 6010D		MTH	B1I0438

Sample Number

1090593-02

Sample Description AF13776 CGYP-6 collected on 08/31/21 11:02

Parameter	Result	Reporting Limit	TI' DE ALL		Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	09/16/21 10:32	EPA 7470A	S7	ICP	B1I0534
Boron	6900	75	ug/L	5.00	09/10/21 20:13	EPA 6010D		MTH	B1I0438
Lithium	130	10	ug/L	1.00	09/10/21 20:48	EPA 6010D		MTH	B1I0438
Molybdenum	ND	10	ug/L	1.00	09/10/21 20:48	EPA 6010D		MTH	B1I0438

Sample Number

1090593-03

Sample Description AF13777 WLF-A2-6 collected on 09/01/21 12:40

Parameter	Result	Reporting Limit	Units	DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	09/16/21 09:53	EPA 7470A		ICP	B1I0534
Boron	370	40	ug/L	1.00	09/10/21 20:40	EPA 6010D		MTH	B1I0438
Lithium	41	10	ug/L	1.00	09/10/21 20:40	EPA 6010D		MTH	B1I0438
Molybdenum	ND	10	ug/L	1.00	09/10/21 20:40	EPA 6010D		MTH	B1I0438

Sample Number

1090593-04

Sample Description AF13778 WLF-A2-6 Dup collected on 09/01/21 12:45

Parameter	Result	Reporting Limit	Units DF		Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	09/16/21 10:04	EPA 7470A		ICP	B1I0534
Boron	380	40	ug/L	1.00	09/10/21 20:44	EPA 6010D		MTH	B1I0438
Lithium	43	10	ug/L	1.00	09/10/21 20:44	EPA 6010D		MTH	B1I0438
Molybdenum	ND	10	ug/L	1.00	09/10/21 20:44	EPA 6010D		MTH	B1I0438

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Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported:

1090593 09/24/21 14:05

1090593-05 Sample Number

Sample Description

AF13773 CGYP-4 collected on 09/01/21 09:04

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	09/16/21 10:49	EPA 7470A	S7	ICP	B1I0534
Boron	8000	75	ug/L	5.00	09/10/21 20:17	EPA 6010D		MTH	B1I0438
Lithium	64	10	ug/L	1.00	09/10/21 20:52	EPA 6010D		MTH	B1I0438
Molybdenum	ND	10	ug/L	1.00	09/10/21 20:52	EPA 6010D		MTH	B1I0438

Sample Number

1090593-06

Sample Description

AF13774 CGYP-4 Dup collected on 09/01/21 09:09

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	09/16/21 11:11	EPA 7470A	S7	ICP	B1I0534
Boron	7800	75	ug/L	5.00	09/10/21 20:21	EPA 6010D		MTH	B1I0438
Lithium	63	10	ug/L	1.00	09/10/21 20:56	EPA 6010D		MTH	B1I0438
Molybdenum	ND	10	ug/L	1.00	09/10/21 20:56	EPA 6010D		MTH	B1I0438



Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B110438 - EPA 3005A										
Blank (B1I0438-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B110438-BS1)										
Boron	500	15	ug/L	500		100	80-120			
Lithium	511	10	ug/L	500		102	80-120			
Molybdenum	480	10	ug/L	500		96	80-120			
Duplicate (B1I0438-DUP1)	Source: 1090593-01	l								
Boron	3300	15	ug/L		3200			2	20	
Lithium	62	10	ug/L		62			0.1	20	
Molybdenum	ND	10	ug/L		ND				20	
Matrix Spike (B1I0438-MS1)	Source: 1090593-01	l								
Boron	3700	15	ug/L	500	3200	101	75-125			
Lithium	590	10	ug/L	500	62	106	75-125			
Molybdenum	460	10	ug/L	500	ND	92	75-125			
Post Spike (B1I0438-PS1)	Source: 1090593-01	l								
Boron	3.6		mg/L	0.500	ND	92	75-125			
Lithium	0.582		mg/L	0.500	ND	104	75-125			
Molybdenum	0.46		mg/L	0.500	ND	93	75-125			
Batch B1I0534 - EPA 7470A										
Blank (B1I0534-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1I0534-BS1)										
Mercury	4.9	0.20	ug/L	5.00		97	80-120			
Matrix Spike (B1I0534-MS1)	Source: 1090593-03	3								
Mercury	5.0	0.20	ug/L	5.00	ND	99	75-125			

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Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1I0534 - EPA 7470A										
Matrix Spike Dup (B110534-MSD1)	Source: 1090593-03									
Mercury	4.9	0.20	ug/L	5.00	ND	98	75-125	1	20	
Post Spike (B1I0534-PS1)	Source: 1090593-03									
Mercury	3.9		ug/L	3.75	ND	103	80-120			
Post Spike (B1I0534-PS2)	Source: 1090593-04									
Mercury	3.9		ug/L	3.75	ND	104	80-120			
Post Spike (B1I0534-PS3)	Source: 1090593-01									
Mercury	3.7		ug/L	3.75	ND	98	80-120			
Post Spike (B1I0534-PS4)	Source: 1090593-02									
Mercury	3.6		ug/L	3.75	ND	94	80-120			
Post Spike (B1I0534-PS5)	Source: 1090593-05									
Mercury	3.6		ug/L	3.75	ND	96	80-120			
Post Spike (B1I0534-PS6)	Source: 1090593-06									
Mercury	3.5		ug/L	3.75	ND	93	80-120			

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Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1090593 Moncks Corner, SC 29461 09/24/21 14:05 Reported:

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1I0438	1090593-01	09/10/2021 11:29	CAL	
EPA 3005A	B1I0438	1090593-02	09/10/2021 11:29	CAL	
EPA 3005A	B1I0438	1090593-03	09/10/2021 11:29	CAL	
EPA 3005A	B1I0438	1090593-04	09/10/2021 11:29	CAL	
EPA 3005A	B1I0438	1090593-05	09/10/2021 11:29	CAL	
EPA 3005A	B1I0438	1090593-06	09/10/2021 11:29	CAL	
EPA 7470A Mercury Digestion					
EPA 7470A	B1I0534	1090593-01	09/13/2021 12:00	NAR	
EPA 7470A	B1I0534	1090593-02	09/13/2021 12:00	NAR	
EPA 7470A	B1I0534	1090593-03	09/13/2021 12:00	NAR	
EPA 7470A	B1I0534	1090593-04	09/13/2021 12:00	NAR	
EPA 7470A	B1I0534	1090593-05	09/13/2021 12:00	NAR	
EPA 7470A	B1I0534	1090593-06	09/13/2021 12:00	NAR	



Data Qualifiers and Definitions

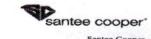
ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

S7 Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Chain of Custody



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

Customer Email/Report Recipient:		Date R		Pr	oject/	Task/	Unit #:	Rerun reques	Rerun request for any flagged QC						
LCMIL	LA	@santeed	cooper.com		/			1215	567	/_ JN	102.0	9.601		No	
													1090543	Analysis Group	
Labworks (Internal us only)	120 mm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Sample Location Description	on/	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	Rep Mis	Comments thod # corting limit c. sample info or other notes	В, Сі, Мо, Нд	
AF1377	75	CGYP-5		8/31/21	1001	DEW/ML	ı	P	G	GW	2			X	
AF1377	16	CGYP-6		1	1102	1	1	1	1	1	1				
AF1377	3777 WLF-42-6		,	9/1/21	1240	1									
AF 137	78	WLF-A2-6	DUP		1245										
A+1377	3	CGYP-4			0904										
AF137	14	CGYP-4 D	UP .	1	999	1		1	1		1			1-11	
											-				
		Michael Sough	DE 214-474	Service Re-					V						
	_	,													
Relinquist	hed hv:	Employee#	Date	Time	Receiv	red by:	l Er	nployee	#]	Date		Time	Sample Receiving (Interna TEMP (°C): 23 -2	I Use Only)	
Symon		35594	9/8/24	1500	Fedt		1	inprojec		Dute			TEMP (°C): <u>3.2</u>	Initial:	
Relinquist		Employee#	Date	Time		red by:	Er	nployee	#	Date		Time	Correct pH: Yes N	0	
FedE	X		9921	1030	Cax	SU			1	9.9	21	1030	Preservative Lot#:		
Relinquisi	hed by:	Employee#	Date	Time	Receiv	ed by:	Er	nployee	#	Date		Time	NETS AND DESCRIPTION		
									L	N E TOGO		100	Date/Time/Init for preser	vative:	
□ Ag	□ ME	TALS (all)	Nuti	rients	MI	SC.		Gy	psun	<u>n</u>		Coal	Flyash	<u>Oil</u>	
	□ Fe	THE RESERVE THE PARTY OF THE PA	□ TO 0	250H0105050003050	☐ BTEX ☐ Napthale	ne.	0	Wallbo	ard sum(<i>a</i>	,	0	Ultimate	☐ Ammonia	Trans. Oil Qual.	
□ As	ΟK	□ Sn	□ TP/		□ THM/H			belo	r)			☐ % Moist ☐ Ash	ure	Color.	
□В	O Li	□Sr	O NH	3+N	□ VOC □ Oil & G	rease		E AL				□ Sulfur	☐ Mineral	Dielectric Strength	
□ Ba	□ Mg	g DTi	D F		□ E. Coli			□ Tot	al meta			☐ BTUs ☐ Volatile	Analysis Matter ☐ Sieve	BIFF	
□ Be	□Mr	ı 🗆 TI	□ NO	2	□ Total Co	niorm			uble Mo			CHN	1 % Moisture	Dissolved Gases Used Oil	
□ Ca	□Мо	THE RESERVE OF THE PERSON NAMED IN	□ Br		☐ Dissolve			D%1	Moistur		STATE OF THE PARTY OF	ther Tests:		© Flashpoint	
□ Cd	□ Na		□ NO.		☐ Dissolve ☐ Rad 226			C Suf			SECTION AND DESCRIPTIONS	XRF Scan HGI	NPDES	D Metals in oil (As.Cd.Cr,Ni.Pt	
□ Co	□Ni	□ Hg			□ Rad 228 □ PCB			C Chi	orides			Fineness Particulate Ma	Off & Grease	Hg)	
□ Cr	□ Pb			the state of	псв			L Par Sulfur	ticle Siz	e		rafficulate Ma	ortss orts	GOFER	



Revised February 2018

Sample Receipt Verification

Client: Santee Cooper	Date Received:	09	9/09/2	2021	Work Order: 1090593
Carrier Name: Client FedEx UP	-			Cou	
Tracking Number: 815367	915467				<u> </u>
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Χ			Damaged Leaking Other:
Custody seals intact?				Х	
COC included with samples?		Х			
COC signed when relinquished and received?		Х			
Sample bottles intact?		Χ			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Χ			
Date / time on COC agree with label on bottle(s)?		Χ			
Number of bottles on COC agrees with number of bottle	es received?	Χ			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Х			
VOA vials free of headspace (<6mm bubble)?				Х	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer - SI	N: 97050067	Х			Ice Cold Packs Dry Ice None
Samples requiring pH preservation at proper pH? Note: Samples for metals analysis may be preserved upon receipt Note: Samples for O&G and VOA analysis – preservation checket	in the lab.	Х			
Samples dechlorinated for parameters requiring chlorine the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, analysis.	e removal at			Х	
If in-hous	se preservation	used	– re	cord l	Lot#
HCL	H ₃ P				
H ₂ SO ₄ HNO ₃	NaC Oth				
Comments:			•		
Were non-conformance issues noted at sample reconformance issue other than noted above:	eipt? Yes	s or	· (1	No)	

Completed by: CSG Page 10 of 10





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project:

Received:

Ground Water

Work Order: 1091488

09/30/2021 09:50

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 September 30, 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 Tina Restivo, your Project Manager, at trestivo@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Tima Resture

Report Approved By:

Tina Restivo

Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water
Work Order: 1091488

Received: 09/30/2021 09:50

Sample Number	Sample Description	Matrix	Sampled	Type
1091488-01	AF15787 CGYP-4	Ground Water	09/27/21 09:38	Grab
1091488-02	AF15788 CGYP-4 Dup	Ground Water	09/27/21 09:43	Grab
1091488-03	AF15789 CGYP-5	Ground Water	09/27/21 11:17	Grab
1091488-04	AF15790 CGYP-6	Ground Water	09/27/21 12:32	Grab
1091488-05	AF15791 WLF-A2-6	Ground Water	09/28/21 10:21	Grab
1091488-06	AF15792 WLF-A2-6 Dup	Ground Water	09/28/21 10:26	Grab



Sample Data

Sample Number

1091488-01

Sample Description

AF15787 CGYP-4 collected on 09/27/21 09:38

Parameter	Result	Reporting Limit	* TT */		Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	10/06/21 11:18	EPA 7470A		NAR	B1J0187
Boron	7800	75	ug/L	5.00	10/04/21 16:26	EPA 6010D		MTH	B1J0040
Lithium	67	10	ug/L	1.00	10/04/21 17:08	EPA 6010D		MTH	B1J0040
Molybdenum	ND	10	ug/L	1.00	10/04/21 17:08	EPA 6010D		MTH	B1J0040

Sample Number

1091488-02

Sample Description AF15788 CGYP-4 Dup collected on 09/27/21 09:43

Parameter	Result	Reporting Limit	Units	DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	10/06/21 11:21	EPA 7470A		NAR	B1J0187
Boron	8200	75	ug/L	5.00	10/04/21 16:29	EPA 6010D		MTH	B1J0040
Lithium	67	10	ug/L	1.00	10/04/21 17:12	EPA 6010D		MTH	B1J0040
Molybdenum	ND	10	ug/L	1.00	10/04/21 17:12	EPA 6010D		MTH	B1J0040

Sample Number

1091488-03

Sample Description AF15789 CGYP-5 collected on 09/27/21 11:17

Parameter	Reporting Result Limit		Units	s DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	10/06/21 11:24	EPA 7470A		NAR	B1J0187
Boron	5000	75	ug/L	5.00	10/04/21 16:33	EPA 6010D		MTH	B1J0040
Lithium	84	10	ug/L	1.00	10/04/21 17:16	EPA 6010D		MTH	B1J0040
Molybdenum	ND	10	ug/L	1.00	10/04/21 17:16	EPA 6010D		MTH	B1J0040

Sample Number

1091488-04

Sample Description AF15790 CGYP-6 collected on 09/27/21 12:32

Parameter	Result	Reporting Result Limit		DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	10/06/21 11:27	EPA 7470A		NAR	B1J0187
Boron	7300	75	ug/L	5.00	10/04/21 16:37	EPA 6010D		MTH	B1J0040
Lithium	150	10	ug/L	1.00	10/04/21 17:20	EPA 6010D		MTH	B1J0040
Molybdenum	ND	10	ug/L	1.00	10/04/21 17:20	EPA 6010D		MTH	B1J0040

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an employee-owned company



Santee Cooper 1 Riverwood Dr. Moncks Corner, SC 29461 Project:

Ground Water

Work Order: Reported: 1091488 10/07/21 14:09

Sample Number

1091488-05

Sample Description

AF15791 WLF-A2-6 collected on $09/28/21\ 10:21$

Parameter	Result	Reporting Limit	Units DF		Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	10/06/21 11:30	EPA 7470A		NAR	B1J0187
Boron	360	15	ug/L	1.00	10/06/21 20:30	EPA 6010D		MTH	B1J0193
Lithium	31	10	ug/L	1.00	10/04/21 16:02	EPA 6010D		MTH	B1J0040
Molybdenum	ND	10	ug/L	1.00	10/06/21 20:30	EPA 6010D		MTH	B1J0193

Sample Number

1091488-06

Sample Description

AF15792 WLF-A2-6 Dup collected on 09/28/21 10:26

Parameter	Result	Reporting Limit	Units	Units DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	10/06/21 11:07	EPA 7470A		NAR	B1J0187
Boron	340	15	ug/L	1.00	10/04/21 17:04	EPA 6010D		MTH	B1J0040
Lithium	29	10	ug/L	1.00	10/04/21 17:04	EPA 6010D		MTH	B1J0040
Molybdenum	ND	10	ug/L	1.00	10/04/21 17:04	EPA 6010D		MTH	B1J0040



Total Metals **Quality Control Summary**

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1J0040 - EPA 3005A										
Blank (B1J0040-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1J0040-BS1)										
Boron	530	15	ug/L	500		106	80-120			
Lithium	525	10	ug/L	500		105	80-120			
Molybdenum	530	10	ug/L	500		106	80-120			
Matrix Spike (B1J0040-MS1)	Source: 1091488-05									
Lithium	568	10	ug/L	500	31	107	75-125			
Matrix Spike Dup (B1J0040-MSD1)	Source: 1091488-05									
Lithium	562	10	ug/L	500	31	106	75-125	1	20	
Post Spike (B1J0040-PS1)	Source: 1091488-05									
Lithium	561	10	ug/L	500	31	106	75-125			
Batch B1J0187 - EPA 7470A										
Blank (B1J0187-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1J0187-BS1)										
Mercury	5.0	0.20	ug/L	5.00		100	80-120			
Matrix Spike (B1J0187-MS1)	Source: 1091488-06									
Mercury	4.9	0.20	ug/L	5.00	ND	98	75-125			
Matrix Spike Dup (B1J0187-MSD1)	Source: 1091488-06									
Mercury	5.0	0.20	ug/L	5.00	ND	101	75-125	3	20	
Post Spike (B1J0187-PS1)	Source: 1091488-06									
Mercury	3.9		ug/L	4.00	ND	97	80-120			

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Santee Cooper
1 Riverwood Dr.
Moncks Corner, SC 29461

Total Metals **Quality Control Summary**

Project:

Reported:

Work Order:

Ground Water

10/07/21 14:09

1091488

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Batch B1J0193 - EPA 3005A										
Blank (B1J0193-BLK1)										
Boron	ND	15	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1J0193-BS1)										
Boron	520	15	ug/L	500		104	80-120			
Molybdenum	500	10	ug/L	500		99	80-120			
Matrix Spike (B1J0193-MS1)	Source: 1091488-0	5								
Boron	890	15	ug/L	500	360	106	75-125			
Molybdenum	510	10	ug/L	500	ND	102	75-125			
Matrix Spike Dup (B1J0193-MSD1)	Source: 1091488-0	5								
Boron	890	15	ug/L	500	360	106	75-125	0.3	20	
Molybdenum	510	10	ug/L	500	ND	103	75-125	1	20	
Post Spike (B1J0193-PS1)	Source: 1091488-0	5								
Boron	900	15	ug/L	500	360	108	75-125			
Molybdenum	530	10	ug/L	500	ND	107	75-125			

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Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1091488 Moncks Corner, SC 29461 Reported: 10/07/21 14:09

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1J0040	1091488-01	10/04/2021 08:11	MTH	
EPA 3005A	B1J0040	1091488-02	10/04/2021 08:11	MTH	
EPA 3005A	B1J0040	1091488-03	10/04/2021 08:11	MTH	
EPA 3005A	B1J0040	1091488-04	10/04/2021 08:11	MTH	
EPA 3005A	B1J0040	1091488-05	10/04/2021 08:11	MTH	
EPA 3005A	B1J0193	1091488-05	10/06/2021 09:28	MLR	
EPA 3005A	B1J0040	1091488-06	10/04/2021 08:11	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1J0187	1091488-01	10/06/2021 08:54	NAR	
EPA 7470A	B1J0187	1091488-02	10/06/2021 08:54	NAR	
EPA 7470A	B1J0187	1091488-03	10/06/2021 08:54	NAR	
EPA 7470A	B1J0187	1091488-04	10/06/2021 08:54	NAR	
EPA 7470A	B1J0187	1091488-05	10/06/2021 08:54	NAR	
EPA 7470A	B1J0187	1091488-06	10/06/2021 08:54	NAR	



Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

Chain of Custody

1091488



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

	ILLIA	@santee	ecooper.cor		/		γ:	121				Unit #:		Rerun requ ≅ <u>∽ </u>			
(Internationally)		Sample Locat Description	ion/	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	• M • Ra • M	cethod # eporting linisc. sample ny other no	info		D, Ll, Mo, Hg	вегоир
AF 5	787	CGYP-4		9/27/2	1 0938	DEN!	l	P	G	GW	2	-01			×		
AF15	188	CGYP-4 D	VIP.	1		1	1	-		1	1	-02				+	-
N 13	100	CG11-4 L	чт		0943											+	
AF15	789	CGYP-5			1117							-03	3				
AFI5	7-90	CGYP-6		11	1232	1		1				-04					
				21			,	1		1	1				-	1	_
AF157	F91	WLF-A2-6		9/28/21	1021			+				-05	***			1	
AF157	-92	WLF-A2-6	DUP	1	1026	1	1	1	1		1	-00	0				
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											-	Track	ing:				
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												8167	020	4 2076			
Relinqu	ished by:	Employee#	Date	Time	Receive	ed by:	Em	ployee !	,	Date		Time		Receiving (Interne			
Symon	en	35594	9/29/21	1500	1/20/21 PS	Fea	(E)	4					IEMI	(°C):	Initia	d:	-
Relinqu	ished by:	Employee#	Date	Time	Receive	ed by:	Em	ployee #	4 86	Date		Time	Correc	et pH: Yes N	No		
JAS	5 Fec	HEX	9/30/21	0950	Me.	est	304		9/	130/1	110	950	Preser	vative Lot#:			
Relinqu	ished by:	Employee#	Date	Time	Receive	d by:	Em	ployee #		Date		Time					
													Date/T	ime/Init for prese	rvative:		
	□ ME	TALS (all)							0.000			7.01656					
□ Ag	□ Cu	□ Sb	BTO	rients	MIS D BTEX	<u>C.</u>		Vallboa	sum			Coal		<u>Flyash</u>		Oil	
O Al	□ Fe	□ Se	D DC	C	□ Napthalen				um(all		36	Itimate 3 % Mois	nire .	☐ Ammonia ☐ LO!		us. Oil (
□ As	□ K	□Sn	THE RESERVE OF THE PARTY OF THE		☐ THM/HA. ☐ VOC	A		below:				2 Ash		12 % Carbon	- 0		
ОВ	□ Li	□ Sr	D F		□ Oil & Gre	ase		DIOC				Sulfur		☐ Mineral			mgth
□ Ba	□Mg	□ Ti	n Gi		□ E. Coli □ Total Coli	form			l metals ble Meta			☐ BTUs☐ Volatile	Matter	Analysis Steve			Claver
□ Be	□ Mn	□ TI	Br No	2	□рН			Purit	y (CaSC		(CHN		0 % Moisture	21.5	ed Oil	
□ Ca	□ Mo	O V	NO		□ Dissolved□ Dissolved			D % M				er Tests: RF Scan					
□ Cd	□Na	□ Zn	Uso	A PROPERTY OF THE PARTY OF THE	☐ Rad 226 ☐ Rad 228		103	□pH			DHO	31		NPDES			
□ Co	□Ni	□ Hg			PCB			Chlor Partic	rides cle Size		222 30 700	neness rticulate Ma	itter	□ Oil & Grease □ As			3.73
□ Cr	□ Pb	□ CrVI	THE RESERVE				00	ulfur	THE BOOK	100-53	12000		(2) A 11 (1) A 1	DTSS		EER	12.000

5=Na₂S₂O₃ 6-Other (Specify)

Page 9 of 10



Revised February 2018

Sample Receipt Verification

Client: Sante	ee Cooper		ate eived:	09	/30/2	:021	Work Order:1091488
Carrier Name:		UPS 0204 2076	US N	Mail		Cou	ourier Field Services Other:
Receipt Crite	eria			Y e s	N o	N A	Comments
Shipping contai	iner / cooler intact?			Х			Damaged Leaking Other:
Custody seals in	ntact?					Х	
COC included	with samples?			Χ			
COC signed wh	nen relinquished and received?			Х			
Sample bottles	intact?			Х			Damaged Leaking Other:
Sample ID on C	COC agree with label on bottle(s)?			Х			
Date / time on 0	COC agree with label on bottle(s)?			Х			
Number of bott	cles on COC agrees with number of bo	ottles recei	ved?	Х			
Samples receive	ed within holding time?			Χ			
Sample volume	e sufficient for analysis?			Х			
VOA vials free	of headspace (<6mm bubble)?					Х	
Samples cooled	Temp at receipt recorded on COC Temp measured with IR thermometer	· - SN: 97050	067	Х			Ice Cold Packs Dry Ice None
Note: Samples	ing pH preservation at proper pH? for metals analysis may be preserved upon rece for O&G and VOA analysis – preservation che	eipt in the lab).	Х			
Samples dechlor the time of sam	orinated for parameters requiring chlor	rine remov	al at			х	
	If in-h	ouse prese	rvation	used	– re	cord	d Lot#
HCL			H_3P				
H ₂ SO ₄			NaC				
HNO ₃			Oth	er			
Comments:							
Were non-con	nformance issues noted at sample r	eceipt?	Yes	or	. (1	No))
	nce issue other than noted above:						

Completed by:____ Page 10 of 10

NAR





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project:

Ground Water 1110388

Work Order: Received:

11/03/2021 09:35

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 November 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

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





Certificate of Analysis

Client Santee Cooper

11/12/2021 08:22

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water
Work Order: 1110388

Received: 11/03/2021 09:35

Sample Number	Sample Description	Matrix	Sampled	Type
1110388-01	AF18534 CGYP-4	Ground Water	10/26/21 10:00	Grab
1110388-02	AF18535 CGYP-4 Dup	Ground Water	10/26/21 10:05	Grab
1110388-03	AF18536 CGYP-5	Ground Water	10/26/21 11:55	Grab
1110388-04	AF18537 CGYP-6	Ground Water	10/26/21 12:54	Grab
1110388-05	AF18539 WLF-A2-6	Ground Water	10/27/21 10:27	Grab
1110388-06	AF18540 WLF-A2-6 Dup	Ground Water	10/27/21 10:32	Grab



Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1110388 Moncks Corner, SC 29461 11/12/21 08:22 Reported:

Sample Data

Sample Number

1110388-01

Sample Description

AF18534 CGYP-4 collected on 10/26/21 10:00

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/09/21 12:34	EPA 7470A	S7	MLR	B1K0469
Boron	6800	75	ug/L	5.00	11/04/21 17:20	EPA 6010D		MTH	B1K0301
Lithium	53	10	ug/L	1.00	11/04/21 17:50	EPA 6010D		MTH	B1K0301
Molybdenum	ND	10	ug/L	1.00	11/04/21 17:50	EPA 6010D		MTH	B1K0301

Sample Number

1110388-02

Sample Description AF18535 CGYP-4 Dup collected on 10/26/21 10:05

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/09/21 12:45	EPA 7470A	S7	MLR	B1K0469
Boron	6900	75	ug/L	5.00	11/04/21 17:23	EPA 6010D		MTH	B1K0301
Lithium	57	10	ug/L	1.00	11/04/21 17:54	EPA 6010D		MTH	B1K0301
Molybdenum	ND	10	ug/L	1.00	11/04/21 17:54	EPA 6010D		MTH	B1K0301

Sample Number

1110388-03

Sample Description AF18536 CGYP-5 collected on 10/26/21 11:55

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/09/21 12:54	EPA 7470A	S7	MLR	B1K0469
Boron	4500	15	ug/L	1.00	11/04/21 17:57	EPA 6010D		MTH	B1K0301
Lithium	76	10	ug/L	1.00	11/04/21 17:57	EPA 6010D		MTH	B1K0301
Molybdenum	ND	10	ug/L	1.00	11/04/21 17:57	EPA 6010D		MTH	B1K0301

Sample Number

1110388-04

Sample Description AF18537 CGYP-6 collected on 10/26/21 12:54

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/09/21 12:57	EPA 7470A	S7	MLR	B1K0469
Boron	6700	75	ug/L	5.00	11/04/21 17:32	EPA 6010D		MTH	B1K0301
Lithium	110	10	ug/L	1.00	11/04/21 18:00	EPA 6010D		MTH	B1K0301
Molybdenum	ND	10	ug/L	1.00	11/04/21 18:00	EPA 6010D		MTH	B1K0301

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Sample Number 1110388-05

Sample Description AF18539 WLF-A2-6 collected on 10/27/21 10:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/09/21 12:59	EPA 7470A		MLR	B1K0469
Boron	420	15	ug/L	1.00	11/04/21 18:03	EPA 6010D		MTH	B1K0301
Lithium	36	10	ug/L	1.00	11/04/21 18:03	EPA 6010D		MTH	B1K0301
Molybdenum	ND	10	ug/L	1.00	11/04/21 18:03	EPA 6010D		MTH	B1K0301

Sample Number

1110388-06

Sample Description

AF18540 WLF-A2-6 Dup collected on 10/27/21 10:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/09/21 13:02	EPA 7470A		MLR	B1K0469
Boron	360	15	ug/L	1.00	11/04/21 17:02	EPA 6010D		MTH	B1K0301
Lithium	36	10	ug/L	1.00	11/04/21 17:02	EPA 6010D		MTH	B1K0301
Molybdenum	ND	10	ug/L	1.00	11/04/21 17:02	EPA 6010D		MTH	B1K0301



Total Metals **Quality Control Summary**

Batch B1K0301 - EPA 3005A Blank (B1K0301-BLK1) Beron ND 15 ug/L Lithium ND 10 ug/L Lithium ND 10 ug/L LCS (B1K0301-BS1) Beroa 470 15 ug/L 500 94 80-120 Lithium 508 10 ug/L 500 97 80-120 Molybdenum 480 10 ug/L 500 97 80-120 Matrix Spike (B1K0301-MS1) Source: 1110388-06 Beroa 840 15 ug/L 500 36 103 75-125 Lithium 552 10 ug/L 500 36 103 75-125 Matrix Spike Dup (B1K0301-MSD1) Source: 1110388-06 Beroa 840 15 ug/L 500 36 103 75-125 Matrix Spike Dup (B1K0301-MSD1) Source: 1110388-06 Beroa 800 15 ug/L 500 36 97 75-125 4 20 Matrix Spike Bup (B1K0301-MSD1) Source: 1110388-06 Beroa 800 15 ug/L 500 36 97 75-125 4 20 Matrix Spike Bup (B1K0301-MSD1) Source: 1110388-06 Beroa 800 15 ug/L 500 36 97 75-125 4 20 Matrix Spike Bup (B1K0301-PS1) Source: 1110388-06 Beroa 800 15 ug/L 500 36 97 75-125 4 20 Molybdenum 480 10 ug/L 500 ND 66 75-125 4 20 Molybdenum 520 10 ug/L 500 ND 76 75-125 4 20 Molybdenum 0.58 mg/L 0.500 ND 76 75-125 Beroa 800 0.92 mg/L 0.500 ND 76 75-125 Batch B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BLK1) Mercury A9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-BS1)	Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (BIK0301-BLK1) Blance ND 15 ug/L		<u>·</u>									6
ND											
Lithium ND 10 ug/L LCS (BIK0301-BS1) Boron 470 15 ug/L 500 94 80-120 Lithium 480 10 ug/L 500 102 80-120 Matrix Spike (BIK0301-MS1) Source: 1110388-06 Boron 840 15 ug/L 500 360 94 75-125 Lithium 552 10 ug/L 500 36 103 75-125 Matrix Spike (BIK0301-MSD1) Source: 1110388-06 Boron 800 15 ug/L 500 360 94 75-125 Matrix Spike (BIK0301-MSD1) Source: 1110388-06 Boron 800 15 ug/L 500 360 97 75-125 Matrix Spike (BIK0301-MSD1) Source: 1110388-06 Boron 800 15 ug/L 500 360 87 75-125 Matrix Spike (BIK0301-MSD1) Source: 1110388-06 Boron 800 15 ug/L 500 360 87 75-125 4 20 Molybdenum 820 10 ug/L 500 36 87 75-125 4 20 Molybdenum 840 10 ug/L 500 ND 96 75-125 4 20 Molybdenum 852 10 ug/L 500 ND 96 75-125 4 20 Molybdenum 800 15 ug/L 500 ND 96 75-125 4 20 Molybdenum 800 15 ug/L 500 ND 96 75-125 4 20 Molybdenum 900 ND 900 ND 900 75-125 4 20 Molybdenum 900 ND 900		ND	1.5	7							
Molybdenum				_							
LCS (B1K0301-BS1) Boron											
Baron	woiyodenum	ND	10	ug/L							
Matrix Spike (BIK0469-BSI) Source: 1110388-06 Source: 1110	LCS (B1K0301-BS1)										
Matrix Spike (B1K0301-MS1) Source: 1110388-06	Boron	470	15	ug/L	500		94	80-120			
Matrix Spike (B1K0301-MS1) Source: 1110388-06	Lithium	508	10	ug/L	500		102	80-120			
Boron 840 15 ug/L 500 360 94 75-125 Lithium 552 10 ug/L 500 36 103 75-125 Molybdenum 500 10 ug/L 500 ND 100 75-125 Matrix Spike Dup (B1K0301-MSD1) Source: 1110388-06 Boron 800 15 ug/L 500 360 87 75-125 4 20 Lithium 520 10 ug/L 500 36 97 75-125 6 20 Molybdenum 480 10 ug/L 500 36 97 75-125 6 20 Molybdenum 480 10 ug/L 500 ND 96 75-125 4 20 Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125 4 20 Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125 Molybdenum 0.58 mg/L 0.500 ND 116 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Molybdenum	480	10	ug/L	500		97	80-120			
Lithium 552 10 ug/L 500 36 103 75-125 Molybdenum 500 10 ug/L 500 ND 100 75-125 Matrix Spike Dup (B1K0301-MSD1) Source: 1110388-06 Boron 800 15 ug/L 500 360 87 75-125 4 20 Lithium 520 10 ug/L 500 36 97 75-125 6 20 Molybdenum 480 10 ug/L 500 ND 96 75-125 6 20 Molybdenum 480 10 ug/L 500 ND 96 75-125 4 20 Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125 4 20 Molybdenum 0.58 mg/L 0.500 ND 16 75 75-125 4 20 Molybdenum 0.58 mg/L 0.500 ND 16 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Matrix Spike (B1K0301-MS1)	Source: 1110388-06									
Matrix Spike Dup (B1K0301-MSD1) Source: 1110388-06 Boron 800 15 ug/L 500 360 87 75-125 4 20 Lithium 520 10 ug/L 500 36 97 75-125 6 20 Molybdenum 480 10 ug/L 500 ND 96 75-125 4 20 Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125 4 20 Molybdenum 0.416 mg/L 0.500 ND 16 75-125 Molybdenum 0.58 mg/L 0.500 ND 16 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Boron	840	15	ug/L	500	360	94	75-125			
Matrix Spike Dup (B1K0301-MSD1) Source: 1110388-06	Lithium	552	10	ug/L	500	36	103	75-125			
Boron 800 15 ug/L 500 360 87 75-125 4 20 Lithium 520 10 ug/L 500 36 97 75-125 6 20 Molybdenum 480 10 ug/L 500 ND 96 75-125 4 20 Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125 Lithium 0.416 mg/L 0.500 ND 76 75-125 Molybdenum 0.58 mg/L 0.500 ND 116 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Molybdenum	500	10	ug/L	500	ND	100	75-125			
Lithium 520 10 ug/L 500 36 97 75-125 6 20 Molybdenum 480 10 ug/L 500 ND 96 75-125 4 20 Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125	Matrix Spike Dup (B1K0301-MSD1)	Source: 1110388-06									
Molybdenum 480 10 ug/L 500 ND 96 75-125 4 20 Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125 Lithium 0.416 mg/L 0.500 ND 76 75-125 Molybdenum 0.58 mg/L 0.500 ND 116 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Boron	800	15	ug/L	500	360	87	75-125	4	20	
Post Spike (B1K0301-PS1) Source: 1110388-06 Boron 0.92 mg/L 0.500 ND 112 75-125 Lithium 0.416 mg/L 0.500 ND 76 75-125 Molybdenum 0.58 mg/L 0.500 ND 116 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Lithium	520	10	ug/L	500	36	97	75-125	6	20	
Boron 0.92 mg/L 0.500 ND 112 75-125 Lithium 0.416 mg/L 0.500 ND 76 75-125 Molybdenum 0.58 mg/L 0.500 ND 116 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Molybdenum	480	10	ug/L	500	ND	96	75-125	4	20	
Lithium 0.416 mg/L 0.500 ND 76 75-125 Molybdenum 0.58 mg/L 0.500 ND 116 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Post Spike (B1K0301-PS1)	Source: 1110388-06									
Molybdenum 0.58 mg/L 0.500 ND 116 75-125 Batch B1K0469 - EPA 7470A Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Boron	0.92		mg/L	0.500	ND	112	75-125			
Blank (B1K0469-BLK1) Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Lithium	0.416		mg/L	0.500	ND	76	75-125			
Mercury ND 0.20 ug/L	Molybdenum	0.58		mg/L	0.500	ND	116	75-125			
Mercury ND 0.20 ug/L LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Batch B1K0469 - EPA 7470A										
LCS (B1K0469-BS1) Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Blank (B1K0469-BLK1)										
Mercury 4.9 0.20 ug/L 5.00 98 80-120 Matrix Spike (B1K0469-MS1) Source: 1110388-01	Mercury	ND	0.20	ug/L							
Matrix Spike (B1K0469-MS1) Source: 1110388-01	LCS (B1K0469-BS1)										
,	Mercury	4.9	0.20	ug/L	5.00		98	80-120			
Mercury 4.4 0.20 ug/L 5.00 ND 89 75-125 S7	Matrix Spike (B1K0469-MS1)	Source: 1110388-01									
	Mercury	4.4	0.20	ug/L	5.00	ND	89	75-125			S7

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Total Metals **Quality Control Summary**

Parameter	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Flags
	resuit		- Jinta	2010	ACSUIT	, JREC	Limits			1 1053
Batch B1K0469 - EPA 7470A										
Matrix Spike Dup (B1K0469-MSD1)	Source: 1110388-01									
Mercury	4.4	0.20	ug/L	5.00	ND	87	75-125	2	20	S7
Post Spike (B1K0469-PS1)	Source: 1110388-01									
Mercury	3.7		ug/L	4.00	ND	91	80-120			S7
Post Spike (B1K0469-PS2)	Source: 1110388-02									
Mercury	3.6		ug/L	4.00	ND	89	80-120			S7
Post Spike (B1K0469-PS3)	Source: 1110388-03									
Mercury	3.4		ug/L	4.00	ND	84	80-120			S7
Post Spike (B1K0469-PS4)	Source: 1110388-04									
Mercury	3.6		ug/L	4.00	ND	88	80-120			S7
Post Spike (B1K0469-PS5)	Source: 1110388-05									
Mercury	4.1		ug/L	4.00	ND	101	80-120			
Post Spike (B1K0469-PS6)	Source: 1110388-06									
Mercury	4.1		ug/L	4.00	ND	104	80-120			

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Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1K0301	1110388-01	11/04/2021 10:01	MTH	
EPA 3005A	B1K0301	1110388-02	11/04/2021 10:01	MTH	
EPA 3005A	B1K0301	1110388-03	11/04/2021 10:01	MTH	
EPA 3005A	B1K0301	1110388-04	11/04/2021 10:01	MTH	
EPA 3005A	B1K0301	1110388-05	11/04/2021 10:01	MTH	
EPA 3005A	B1K0301	1110388-06	11/04/2021 10:01	MTH	
EPA 7470A Mercury Digestion					
EPA 7470A	B1K0469	1110388-01	11/08/2021 15:00	MLR	
EPA 7470A	B1K0469	1110388-02	11/08/2021 15:00	MLR	
EPA 7470A	B1K0469	1110388-03	11/08/2021 15:00	MLR	
EPA 7470A	B1K0469	1110388-04	11/08/2021 15:00	MLR	
EPA 7470A	B1K0469	1110388-05	11/08/2021 15:00	MLR	
EPA 7470A	B1K0469	1110388-06	11/08/2021 15:00	MLR	



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.

santee cooper

Chain of Custody

Santee Cooper One Riverwood Drive Moneks Comer, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

Rerun request for any flagged QC Project/Task/Unit #: **Customer Email/Report Recipient:** Date Results Needed by: 121567 / JMO2.09.60 / 36500 (Yes) No LCWILLIA @santeecooper.com **Analysis Group** Comments Labworks ID# Sample Location/ 7 Matrix(see below Preservative (see below) Collection Date (Internal use Description Method # Collection Tim Sample Collecto No. (Gla otal # of contain Reporting limit only) Grab (G) or Composite (C) Bottle type: (G/Plastic-P) Misc. sample info Ľ. Any other notes m ন্যা DEN, X G 1 P GW 2 B, Li, Mo - 6010 10/26/21 0859 ML 1000 Hg-7470 CGYP-4 OLAF18534 CGYP -4 DUP 1005 -02 AF 18535 CGYP-5 1155 AF18536 1254 CGYP-6 -04 AF 18537 WLF-A2-6 10/27/21 1027 AF18539 T 1032 AF1 8540 WLF-AZ-6 DUP Sample Receiving (Internal Use Only) Time Received by: Employee # Date Time Relinquished by: Employee# TEMP (°C): 18.2 Initial: FEARX 35594 Symoun 11/2/21 Correct pH: Yes Time Received by: Date Relinquished by: Time Employee # Employee# Date Preservative Lot#: 0935 11.3-21 FEELEX 11321 0935 Received by: Employee # Date Time Relinquished by: Date Time Employee# Date/Time/Init for preservative: ☐ METALS (all) Oil Gypsum Coal **Nutrients** MISC. Flyash □ Cu □Sb □ Ag Trans. Oll Qual. Wallboard TOC DRTEX ☐ Ultimate Ammonia □ AI □ Fe □ Se Moisture Gypsum(all DOC □ Napthalene ☐ % Moisture DLOI □ THM/HAA below) □ Sn $\Box K$ □ As TP/TPO4 □ Ash % Carbon OVOC AIM Mineral ☐ Sulfur NH3-N \Box B □ Li □ Sr □ Oil & Grease TOC Analysis □ BTUs □ E. Coli Total metals □ Ba □ Mg □ Ti Dissolved Gases CI ☐ Volatile Matter C Sieve ☐ Total Coliform Soluble Metals Used Oil Purity (CaSO4) CHN □ % Moisture □ Be □ Mn U TI NO2 ПоН Plashpoint Metals in oil (As,Cd,Cr,Nt,Pb Other Tests: ☐ Dissolved As Вт 3% Moisture □Мо OV □ Ca ☐ Dissolved Fe ☐ Sulfites □ XRF Scan NO3 NPDES ☐ Rad 226 O HGI □ Zn pH □ Cd □ Na **SO4** □ Oil & Grease Hg) ☐ Rad 228 Chlorides. ☐ Fineness □ Co □ Ni ☐ Hg ☐ Particulate Matter □ PCB ☐ Particle Size UTSS COFER □ Pb □ CrVI □ Cr



Revised February 2018

Sample Receipt Verification

Cliente	Santee Coo	ppor		Date ceived:	1.	1/03/2	2021	Work Order: 1110388
Client:	Samee Coc	ррег	Rec	cerveu.		1/03/2	2021	Order: 1110300
Carrier Name:	Client	FedEx	UPS	US I	Mail		Cou	urier Field Services Other:
	Tracl	king Number:	815367913	946				<u> </u>
Receipt Crite	eria				Y e s	N o	N A	Comments
Shipping conta	iner / cooler in	tact?			Х			Damaged Leaking Other:
Custody seals i	ntact?				Х			
COC included	with samples?				Х			
COC signed w	hen relinquishe	ed and received?			Х			
Sample bottles	intact?				Х			Damaged Leaking Other:
Sample ID on 0	COC agree wit	h label on bottle(s)	?		Х			
Date / time on	COC agree wit	th label on bottle(s)	?		Х			
Number of bott	tles on COC ag	grees with number of	of bottles rece	eived?	Х			
Samples receiv	ed within hold	ing time?			Х			
Sample volume	e sufficient for	analysis?			Х			
VOA vials free	of headspace	(<6mm bubble)?					Х	
Samples cooled		receipt recorded on CO easured with IR thermor		50067	Χ			Ice Cold Packs Dry Ice None
Note: Samples	for metals analysis	ration at proper pH ² s may be preserved upor A analysis – preservation	n receipt in the la	ıb. ch.	Х			
Samples dechlor the time of same	orinated for par ple collection?	rameters requiring o	chlorine remo	oval at			x	
		If	in-house pres	servation	used	– re	cord	Lot#
HCL				H ₃ P	O_4			
H ₂ SO ₄ HNO ₃				NaC Oth				
Comments:				Our	ici			
Were non-cor	nformance iss	ues noted at samp	ole receipt?	Yes	or C	· 1	No	
		r than noted above:	1					
Revised February	2018						Co	ompleted by: CSG

Completed by:_____





Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Ground Water Project: Work Order: 1111325

Received: 11/23/2021 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 November 23, 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 Elisabeth Noblet, your Project Manager, at enoblet@rcenviro.com, (864)-232-1556 if you have any questions about this report.

CC: Jeanette Gilmetti, Sherri Brown, Courtney Ames Watkins

Elisabeth Noblet

Report Approved By:

Elisabeth Noblet

Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water Work Order: 1111325

Received: 11/23/2021 10:20

Sample Number	Sample Description	Matrix	Sampled	Type
1111325-01	AF20415 CGYP-4	Ground Water	11/17/21 10:18	Grab
1111325-02	AF20416 CGYP-4 DUP	Ground Water	11/17/21 10:23	Grab
1111325-03	AF20417 CGYP-5	Ground Water	11/17/21 11:51	Grab
1111325-04	AF20418 CGYP-6	Ground Water	11/17/21 13:04	Grab
1111325-05	AF20419 WLF-A2-6	Ground Water	11/18/21 11:27	Grab
1111325-06	AF20420 WLF-A2-6 DUP	Ground Water	11/18/21 11:32	Grab

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Sample Data

Sample Number 1111325-01

Sample Description AF20415 CGYP-4 collected on 11/17/21 10:18

Parameter	Result	Reporting Limit	Units	Units DF Analyzed		Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/29/21 18:32	EPA 7470A		ELN	B1K1244
Boron	7100	75	ug/L	5.00	11/24/21 15:38	EPA 6010D		MLR	B1K1218
Lithium	52	10	ug/L	1.00	11/24/21 16:09	EPA 6010D		MLR	B1K1218
Molybdenum	ND	10	ug/L	1.00	11/30/21 16:41	EPA 6010D		MLR	B1K1218

Sample Number

1111325-02

Sample Description AF20416 CGYP-4 DUP collected on 11/17/21 10:23

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/29/21 18:40	EPA 7470A		ELN	B1K1244
Boron	7200	75	ug/L	5.00	11/24/21 15:41	EPA 6010D		MLR	B1K1218
Lithium	53	10	ug/L	1.00	11/24/21 16:12	EPA 6010D		MLR	B1K1218
Molybdenum	ND	10	ug/L	1.00	11/30/21 16:44	EPA 6010D		MLR	B1K1218

Sample Number Sample Description 1111325-03

AF20417 CGYP-5 collected on 11/17/21 11:51

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/29/21 18:43	EPA 7470A		ELN	B1K1244
Boron	4400	75	ug/L	5.00	11/24/21 15:44	EPA 6010D		MLR	B1K1218
Lithium	77	10	ug/L	1.00	11/24/21 16:15	EPA 6010D		MLR	B1K1218
Molybdenum	ND	10	ug/L	1.00	11/30/21 16:47	EPA 6010D		MLR	B1K1218

Sample Number

1111325-04

Sample Description AF20418 CGYP-6 collected on 11/17/21 13:04

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/29/21 18:46	EPA 7470A		ELN	B1K1244
Boron	5200	75	ug/L	5.00	11/24/21 15:47	EPA 6010D		MLR	B1K1218
Lithium	110	10	ug/L	1.00	11/24/21 16:18	EPA 6010D		MLR	B1K1218
Molybdenum	ND	10	ug/L	1.00	11/30/21 16:50	EPA 6010D		MLR	B1K1218

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an employee-owned company



Sample Number 1111325-05

Sample Description AF20419 WLF-A2-6 collected on 11/18/21 11:27

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/29/21 18:49	EPA 7470A		ELN	B1K1244
Boron	410	15	ug/L	1.00	11/24/21 15:20	EPA 6010D		MLR	B1K1218
Lithium	41	10	ug/L	1.00	11/24/21 15:20	EPA 6010D		MLR	B1K1218
Molybdenum	ND	10	ug/L	1.00	11/30/21 16:26	EPA 6010D		MLR	B1K1218

Sample Number

1111325-06

Sample Description AF20420 WLF-A2-6 DUP collected on 11/18/21 11:32

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	11/29/21 17:59	EPA 7470A		ELN	B1K1244
Boron	480	15	ug/L	1.00	11/24/21 16:21	EPA 6010D		MLR	B1K1218
Lithium	40	10	ug/L	1.00	11/24/21 16:21	EPA 6010D		MLR	B1K1218
Molybdenum	ND	10	ug/L	1.00	11/30/21 16:53	EPA 6010D		MLR	B1K1218



Total Metals **Quality Control Summary**

D	D	Reporting Limit	IIi.	Spike	Source	0/ DEC	%REC	DDD	RPD	El
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1K1218 - EPA 3005A										
Blank (B1K1218-BLK1)										
Boron	ND	15	ug/L							
Lithium	ND	10	ug/L							
Molybdenum	ND	10	ug/L							
LCS (B1K1218-BS1)										
Boron	500	15	ug/L	500		100	80-120			
Lithium	518	10	ug/L	500		104	80-120			
Molybdenum	500	10	ug/L	500		101	80-120			
Matrix Spike (B1K1218-MS1)	Source: 1111325-05									
Boron	920	15	ug/L	500	410	101	75-125			
Lithium	574	10	ug/L	500	41	107	75-125			
Molybdenum	530	10	ug/L	500	ND	106	75-125			
Matrix Spike Dup (B1K1218-MSD1)	Source: 1111325-05									
Boron	900	15	ug/L	500	410	97	75-125	2	20	
Lithium	558	10	ug/L	500	41	104	75-125	3	20	
Molybdenum	530	10	ug/L	500	ND	105	75-125	0.5	20	
Post Spike (B1K1218-PS1)	Source: 1111325-05									
Boron	0.89		mg/L	0.500	ND	95	75-125			
Lithium	0.523		mg/L	0.500	ND	96	75-125			
Molybdenum	0.50		mg/L	0.500	ND	99	75-125			
Batch B1K1244 - EPA 7470A										
Blank (B1K1244-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1K1244-BS1)										
Mercury	4.8	0.20	ug/L	5.00		96	80-120			
Matrix Spike (B1K1244-MS1)	Source: 1111325-06									
Mercury	5.0	0.20	ug/L	5.00	ND	100	75-125			
			•							

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Total Metals **Quality Control Summary**

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags

Batch B1K1244 - EPA 7470A

Matrix Spike Dup (B1K1244-MSD1) Source: 1111325-06

Mercury 5.0 0.20 ug/L 5.00 ND 101 75-125 0.2 20

Sample Preparation Data

Batch	Sample ID	Prepared	Analyst	
B1K1218	1111325-01	11/24/2021 10:24	MLR	
B1K1218	1111325-02	11/24/2021 10:24	MLR	
B1K1218	1111325-03	11/24/2021 10:24	MLR	
B1K1218	1111325-04	11/24/2021 10:24	MLR	
B1K1218	1111325-05	11/24/2021 10:24	MLR	
B1K1218	1111325-06	11/24/2021 10:24	MLR	
B1K1244	1111325-01	11/24/2021 15:37	MTH	
B1K1244	1111325-02	11/24/2021 15:37	MTH	
B1K1244	1111325-03	11/24/2021 15:37	MTH	
B1K1244	1111325-04	11/24/2021 15:37	MTH	
B1K1244	1111325-05	11/24/2021 15:37	MTH	
B1K1244	1111325-06	11/24/2021 15:37	MTH	
	B1K1218 B1K1218 B1K1218 B1K1218 B1K1218 B1K1218 B1K1244 B1K1244 B1K1244 B1K1244	B1K1218 1111325-01 B1K1218 1111325-02 B1K1218 1111325-03 B1K1218 1111325-04 B1K1218 1111325-05 B1K1218 1111325-06 B1K1244 1111325-01 B1K1244 1111325-02 B1K1244 1111325-03 B1K1244 1111325-04 B1K1244 1111325-04 B1K1244 1111325-05	B1K1218 1111325-01 11/24/2021 10:24 B1K1218 1111325-02 11/24/2021 10:24 B1K1218 1111325-03 11/24/2021 10:24 B1K1218 1111325-04 11/24/2021 10:24 B1K1218 1111325-05 11/24/2021 10:24 B1K1218 1111325-05 11/24/2021 10:24 B1K1218 1111325-06 11/24/2021 10:24 B1K1244 1111325-01 11/24/2021 15:37 B1K1244 1111325-02 11/24/2021 15:37 B1K1244 1111325-03 11/24/2021 15:37 B1K1244 1111325-04 11/24/2021 15:37 B1K1244 1111325-04 11/24/2021 15:37	B1K1218 1111325-01 11/24/2021 10:24 MLR B1K1218 1111325-02 11/24/2021 10:24 MLR B1K1218 1111325-03 11/24/2021 10:24 MLR B1K1218 1111325-04 11/24/2021 10:24 MLR B1K1218 1111325-05 11/24/2021 10:24 MLR B1K1218 1111325-05 11/24/2021 10:24 MLR B1K1218 1111325-06 11/24/2021 10:24 MLR B1K1218 1111325-06 11/24/2021 10:24 MLR B1K1244 1111325-01 11/24/2021 15:37 MTH B1K1244 1111325-02 11/24/2021 15:37 MTH B1K1244 1111325-03 11/24/2021 15:37 MTH B1K1244 1111325-04 11/24/2021 15:37 MTH B1K1244 1111325-04 11/24/2021 15:37 MTH B1K1244 1111325-05 11/24/2021 15:37 MTH

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Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

Chain of Custody



1111325

Santee Cooper One Riverwood Drive Moneks 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 121567 / JM02.09.601 / 36500 @santeecooper.com Yes No **Analysis Group** Labworks ID# Sample Location/ Comments 五 Matrix(see below) (Internal use Description Collection Date Collection Time Total # of container Method # Sample Collector Gla Z° only) Preservative (Grab (G) or Composite (C) Reporting limit Bottle type: (G/Plastic-P) Misc. sample info Ľ. Any other notes m' DEW CGYP-4 11/17/21 2 AF20415 1018 ML X GW B, Li, Mo - 6010 16 CGYP-4 DUP Hg 7470 1023 17 CGYP-5 1151 18 CGYP-6 1304 一年 WLF - 42-6 11/18/21 1127 20 WLF-A2-6 DUP 1132 Sample Receiving (Internal Use Only) Relinquished by: Employee# Date Time Received by: Employee # Date Time TEMP (°C): Initial: ENEX Fracking Symoun 35594 11/22/21 8108 05/26 1200 781 Correct pH: Yes Relinquished by: Employee# Time Received by: Employee # Date Time Fed Preservative Lot#: 10:20 water 11/23/21 est 10:20 11/23/21 Relinquished by: **Employee#** Date Time Received by: Employee # Date Time Date/Time/Init for preservative: ☐ METALS (all) **Nutrients** MISC. Gypsum Coal Oil **Flyash** □ Cu □ Ag □ Sb TOC O BTEX Wallboard □ Ultimate D AI Ammonia □ Fe ☐ Se ☐ Napthalene DOC Gypsum(all ☐ % Moisture LOI ☐ As $\Box K$ □ Sn TP/TPO4 D THM/HAA below) □ Ash % Carbon OVOC O AIM NH3-N OB D Li ☐ Sr ☐ Sulfur Mineral □ Oil & Grease TOC TI BTUS □ Ba Analysis DE Coli □ Mg □ Ti Total metals (1 ☐ Volatile Matter ☐ Total Coliform Sieve Soluble Metals □ Be □ Mn O TI NO2 □pH □ CHN % Moisure Purity (CaSO4) Br ☐ Dissolved As Other Tests: □ Ca □ Mo $\Box V$ % Moisture ☐ Dissolved Fe NU3 Sulfites ☐ XRF Scan **NPDES** O Cd □ Na Zn □ Rad 226 504 O HGI pH ☐ Rad 228 Oil & Grease Chlorides □ Fineness □ Co □ Ni □ Hg □ PCB Particle Size C Particulate Matter □ Cr □ Pb □ CrVI



Revised February 2018

Sample Receipt Verification

Client: Santee Cooper R	Date eceived:	1′	1/23/2	2021	Work Order: 1111325
Carrier Name: Client FedEx UPS 81080526	US N	Mail		Cou	nrier Field Services Other:
Tracking Number:	7015				_
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Χ			Damaged Leaking Other:
Custody seals intact?		Χ			
COC included with samples?		Χ			
COC signed when relinquished and received?		Χ			
Sample bottles intact?		Χ			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Χ			
Date / time on COC agree with label on bottle(s)?		Χ			
Number of bottles on COC agrees with number of bottles re-	ceived?	Χ			
Samples received within holding time?		Χ			
Sample volume sufficient for analysis?		Χ			
VOA vials free of headspace (<6mm bubble)?				Х	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer - SN: 97	050067	Χ			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 Note: Samples for O&G and VOA analysis – preservation checked at both samples for O&G.	lab.	Х			
Samples dechlorinated for parameters requiring chlorine ren the time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, VOA analysis.	noval at			х	
If in-house pr	eservation	used	– re	cord	Lot #
HCL	H ₃ Pe				
H ₂ SO ₄	NaC				
HNO ₃	Oth	er			
Comments:					
Were non-conformance issues noted at sample receipt?	? Yes	or		NO)	
Non-Conformance issue other than noted above:					

CSG

Page 9 of 9

Completed by:____



Report of Analysis

Santee Cooper - ABS Lab

One Riverwood Drive Moncks Corner, SC 29461 Attention: Sherri Brown

Lot Number: XA14014

Date Completed:01/20/2022

01/20/2022 4:06 PM Approved and released by:

Project Manager I: Blaire M. Gagne





The electronic signature above is the equivalent of a handwritten signature.

This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Santee Cooper – ABS Lab Lot Number: XA14014

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report. Where sampling is conducted by the client, results relate to the accuracy of the information provided, and as the samples are received.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation: Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, E. coli and Total coliforms SM 9223 B-2004, Solid Chemical Material: TOC Walkley-Black, Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Fecal Coliform Colilert-18.

If you have any questions regarding this report, please contact the Pace Project Manager listed on the cover page.

Sample Summary Santee Cooper – ABS Lab

Lot Number: XA14014 Project Name: Project Number:

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	AF21736	Aqueous	12/06/2021 0954	01/14/2022
002	AF21737	Aqueous	12/06/2021 0959	01/14/2022
003	AF21738	Aqueous	12/06/2021 1113	01/14/2022
004	AF21739	Aqueous	12/06/2021 1215	01/14/2022
005	AF21740	Aqueous	12/07/2021 1036	01/14/2022
006	AF21741	Aqueous	12/07/2021 1041	01/14/2022

(6 samples)

Detection Summary Santee Cooper – ABS Lab

Lot Number: XA14014 Project Name: Project Number:

Sampl	e Sample ID	Matrix	Parameter	Method	Result	Q Units	Page
001	AF21736	Aqueous	Arsenic	6020B	5.8	ug/L	5
001	AF21736	Aqueous	Barium	6020B	33	ug/L	5
001	AF21736	Aqueous	Beryllium	6020B	19	ug/L	5
001	AF21736	Aqueous	Calcium	6020B	310000	ug/L	5
001	AF21736	Aqueous	Cobalt	6020B	43	ug/L	5
001	AF21736	Aqueous	Lead	6020B	12	ug/L	5
001	AF21736	Aqueous	Selenium	6020B	15	ug/L	5
002	AF21737	Aqueous	Arsenic	6020B	6.0	ug/L	6
002	AF21737	Aqueous	Barium	6020B	32	ug/L	6
002	AF21737	Aqueous	Beryllium	6020B	19	ug/L	6
002	AF21737	Aqueous	Calcium	6020B	300000	ug/L	6
002	AF21737	Aqueous	Cobalt	6020B	41	ug/L	6
002	AF21737	Aqueous	Lead	6020B	12	ug/L	6
002	AF21737	Aqueous	Selenium	6020B	15	ug/L	6
003	AF21738	Aqueous	Barium	6020B	130	ug/L	7
003	AF21738	Aqueous	Beryllium	6020B	10	ug/L	7
003	AF21738	Aqueous	Calcium	6020B	250000	ug/L	7
003	AF21738	Aqueous	Cobalt	6020B	68	ug/L	7
003	AF21738	Aqueous	Selenium	6020B	7.2	ug/L	7
004	AF21739	Aqueous	Barium	6020B	1200	ug/L	8
004	AF21739	Aqueous	Beryllium	6020B	25	ug/L	8
004	AF21739	Aqueous	Calcium	6020B	380000	ug/L	8
004	AF21739	Aqueous	Cobalt	6020B	100	ug/L	8
004	AF21739	Aqueous	Lead	6020B	3.9	ug/L	8
004	AF21739	Aqueous	Selenium	6020B	10	ug/L	8
005	AF21740	Aqueous	Arsenic	6020B	12	ug/L	9
005	AF21740	Aqueous	Barium	6020B	44	ug/L	9
005	AF21740	Aqueous	Calcium	6020B	130000	ug/L	9
006	AF21741	Aqueous	Arsenic	6020B	10	ug/L	10
006	AF21741	Aqueous	Barium	6020B	43	ug/L	10
006	AF21741	Aqueous	Calcium	6020B	140000	ug/L	10

(31 detections)

Client: Santee Cooper - ABS Lab

Laboratory ID: XA14014-001 Description: AF21736 Matrix: Aqueous

Date Sampled:12/06/2021 0954 Project Name: Date Received: 01/14/2022 Project Number:

Run Prep Method **Analytical Method** Dilution **Analysis Date Analyst Prep Date Batch** 3005A 6020B 01/18/2022 1716 BNW 01/18/2022 0842 28629 2 3005A 6020B 20 01/19/2022 0946 BNW 01/18/2022 0842 28629

Parameter	CAS Number	Analytical Method	Result Q	LOQ	Units	Run
- raiailletei	Number	Method		LOQ	Ullits	Kuii
Antimony	7440-36-0	6020B	ND	2.0	ug/L	1
Arsenic	7440-38-2	6020B	5.8	2.0	ug/L	1
Barium	7440-39-3	6020B	33	5.0	ug/L	1
Beryllium	7440-41-7	6020B	19	0.40	ug/L	1
Cadmium	7440-43-9	6020B	ND	0.50	ug/L	1
Calcium	7440-70-2	6020B	310000	8000	ug/L	2
Chromium	7440-47-3	6020B	ND	5.0	ug/L	1
Cobalt	7440-48-4	6020B	43	5.0	ug/L	1
Lead	7439-92-1	6020B	12	1.0	ug/L	1
Selenium	7782-49-2	6020B	15	5.0	ug/L	1
Thallium	7440-28-0	6020B	ND	0.50	ug/L	1

LOQ = Limit of Quantitation ND = Not detected at or above the LOQ H = Out of holding time

B = Detected in the method blank N = Recovery is out of criteria W = Reported on wet weight basis E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Santee Cooper - ABS Lab

Laboratory ID: XA14014-002

Description: AF21737

2

Project Name:

Date Sampled:12/06/2021 0959

3005A

Matrix: Aqueous

Date Received: 01/14/2022

Project Number:

RunPrep MethodAnalytical MethodDilutionAnalysis DateAnalyst13005A6020B101/18/2022 1719BNW

 ytical Method
 Dilution
 Analysis Date
 Analyst
 Prep Date
 Batch

 6020B
 1
 01/18/2022 1719
 BNW
 01/18/2022 0842
 28629

 6020B
 20
 01/19/2022 0949
 BNW
 01/18/2022 0842
 28629

Parameter	CAS Number	Analytical Method	Result Q	LOQ	Units	Run
Antimony	7440-36-0	6020B	ND	2.0	ug/L	1
Arsenic	7440-38-2	6020B	6.0	2.0	ug/L	1
Barium	7440-39-3	6020B	32	5.0	ug/L	1
Beryllium	7440-41-7	6020B	19	0.40	ug/L	1
Cadmium	7440-43-9	6020B	ND	0.50	ug/L	1
Calcium	7440-70-2	6020B	300000	8000	ug/L	2
Chromium	7440-47-3	6020B	ND	5.0	ug/L	1
Cobalt	7440-48-4	6020B	41	5.0	ug/L	1
Lead	7439-92-1	6020B	12	1.0	ug/L	1
Selenium	7782-49-2	6020B	15	5.0	ug/L	1
Thallium	7440-28-0	6020B	ND	0.50	ug/L	1

LOQ = Limit of Quantitation

ND = Not detected at or above the LOQ

H = Out of holding time

B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40% Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*

Client: Santee Cooper - ABS Lab

Laboratory ID: XA14014-003

Description: AF21738 Matrix: Aqueous

Date Sampled:12/06/2021 1113 Project Name:
Date Received: 01/14/2022 Project Number:

Run Prep Method **Analytical Method** Dilution **Analysis Date Analyst Prep Date Batch** 3005A 6020B 01/18/2022 1723 BNW 01/18/2022 0842 28629 2 3005A 6020B 20 01/19/2022 0953 BNW 01/18/2022 0842 28629

Parameter	CAS Number	Analytical Method	Result	Q LOQ	Units	Run
						- Kuii
Antimony	7440-36-0	6020B	ND	2.0	ug/L	1
Arsenic	7440-38-2	6020B	ND	2.0	ug/L	1
Barium	7440-39-3	6020B	130	5.0	ug/L	1
Beryllium	7440-41-7	6020B	10	0.40	ug/L	1
Cadmium	7440-43-9	6020B	ND	0.50	ug/L	1
Calcium	7440-70-2	6020B	250000	8000	ug/L	2
Chromium	7440-47-3	6020B	ND	5.0	ug/L	1
Cobalt	7440-48-4	6020B	68	5.0	ug/L	1
Lead	7439-92-1	6020B	ND	1.0	ug/L	1
Selenium	7782-49-2	6020B	7.2	5.0	ug/L	1
Thallium	7440-28-0	6020B	ND	0.50	ug/L	1

LOQ = Limit of Quantitation

ND = Not detected at or above the LOQ

H = Out of holding time

B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40% Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Santee Cooper - ABS Lab

Laboratory ID: XA14014-004

Description: AF21739

Matrix: Aqueous

Date Sampled:12/06/2021 1215

Project Name:

Date Received: 01/14/2022

Project Number:

Run	Prep Method
1	3005A
2	2005 4

Analytical Method

Dilution **Analysis Date Analyst** 01/18/2022 1734 BNW

Prep Date Batch 01/18/2022 0842 28629

6020B 6020B 20 01/19/2022 0957 BNW 01/18/2022 0842 28629 3005A Analytical

Parameter	CAS Number	Analytical Method	Result	Q LOQ	Units	Run
Antimony	7440-36-0	6020B	ND	2.0	ug/L	1
Arsenic	7440-38-2	6020B	ND	2.0	ug/L	1
Barium	7440-39-3	6020B	1200	5.0	ug/L	1
Beryllium	7440-41-7	6020B	25	0.40	ug/L	1
Cadmium	7440-43-9	6020B	ND	0.50	ug/L	1
Calcium	7440-70-2	6020B	380000	8000	ug/L	2
Chromium	7440-47-3	6020B	ND	5.0	ug/L	1
Cobalt	7440-48-4	6020B	100	5.0	ug/L	1
Lead	7439-92-1	6020B	3.9	1.0	ug/L	1
Selenium	7782-49-2	6020B	10	5.0	ug/L	1
Thallium	7440-28-0	6020B	ND	0.50	ug/L	1

LOQ = Limit of Quantitation ND = Not detected at or above the LOQ H = Out of holding time

B = Detected in the method blank N = Recovery is out of criteria W = Reported on wet weight basis E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Santee Cooper - ABS Lab

6020B

10

Laboratory ID: **XA14014-005**Matrix: **Aqueous**

01/18/2022 0842 28629

Description: AF21740

Run Prep Method

2

3005A

3005A

Date Sampled:12/07/2021 1036 Project Name:

Date Received: 01/14/2022 Project Number:

 Analytical Method
 Dilution
 Analysis Date
 Analyst
 Prep Date
 Batch

 6020B
 1
 01/18/2022 1738
 BNW
 01/18/2022 0842
 28629

01/19/2022 1001 BNW

Parameter	CAS Number	Analytical Method	Result Q	LOQ	Units	Run
Antimony	7440-36-0	6020B	ND	2.0	ug/L	1
Arsenic	7440-38-2	6020B	12	2.0	ug/L	1
Barium	7440-39-3	6020B	44	5.0	ug/L	1
Beryllium	7440-41-7	6020B	ND	0.40	ug/L	1
Cadmium	7440-43-9	6020B	ND	0.50	ug/L	1
Calcium	7440-70-2	6020B	130000	4000	ug/L	2
Chromium	7440-47-3	6020B	ND	5.0	ug/L	1
Cobalt	7440-48-4	6020B	ND	5.0	ug/L	1
Lead	7439-92-1	6020B	ND	1.0	ug/L	1
Selenium	7782-49-2	6020B	ND	5.0	ug/L	1
Thallium	7440-28-0	6020B	ND	0.50	ug/L	1

LOQ = Limit of Quantitation

ND = Not detected at or above the LOQ

H = Out of holding time

B = Detected in the method blank
N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range

Q = Surrogate failure L = LCS/LCSD failure

W = Reported on wet weight basis

P = The RPD between two GC columns exceeds 40%

S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

Client: Santee Cooper - ABS Lab

Laboratory ID: XA14014-006

Description: AF21741

Matrix: Aqueous

Date Sampled: 12/07/2021 1041 Project Name: Date Received: 01/14/2022 Project Number:

Run Prep Method **Analytical Method** Dilution **Analysis Date Analyst Prep Date Batch** 3005A 6020B 01/18/2022 1742 BNW 01/18/2022 0842 28629 2 3005A 6020B 10 01/19/2022 1004 BNW 01/18/2022 0842 28629

Parameter	CAS Number	Analytical Method	Result Q	LOQ	Units	Run
Antimony	7440-36-0	6020B	ND	2.0	ug/L	1
Arsenic	7440-38-2	6020B	10	2.0	ug/L	1
Barium	7440-39-3	6020B	43	5.0	ug/L	1
Beryllium	7440-41-7	6020B	ND	0.40	ug/L	1
Cadmium	7440-43-9	6020B	ND	0.50	ug/L	1
Calcium	7440-70-2	6020B	140000	4000	ug/L	2
Chromium	7440-47-3	6020B	ND	5.0	ug/L	1
Cobalt	7440-48-4	6020B	ND	5.0	ug/L	1
Lead	7439-92-1	6020B	ND	1.0	ug/L	1
Selenium	7782-49-2	6020B	ND	5.0	ug/L	1
Thallium	7440-28-0	6020B	ND	0.50	ug/L	1

LOQ = Limit of Quantitation ND = Not detected at or above the LOQ H = Out of holding time

B = Detected in the method blank N = Recovery is out of criteria

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.) 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com **QC Summary**

ICP-MS Metals - MB

Sample ID: XQ28629-001 Batch: 28629

Analytical Method: 6020B

Matrix: Aqueous Prep Method: 3005A

Prep Date: 01/18/2022 0842

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Antimony	ND		1	2.0	ug/L	01/18/2022 1604
Arsenic	ND		1	2.0	ug/L	01/18/2022 1604
Barium	ND		1	5.0	ug/L	01/18/2022 1604
Beryllium	ND		1	0.40	ug/L	01/18/2022 1604
Cadmium	ND		1	0.50	ug/L	01/18/2022 1604
Calcium	ND		1	400	ug/L	01/18/2022 1604
Chromium	ND		1	5.0	ug/L	01/18/2022 1604
Cobalt	ND		1	5.0	ug/L	01/18/2022 1604
Lead	ND		1	1.0	ug/L	01/18/2022 1604
Selenium	ND		1	5.0	ug/L	01/18/2022 1604
Thallium	ND		1	0.50	ug/L	01/18/2022 1604

LOQ = Limit of Quantitation

ND = Not detected at or above the LOQ

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS Metals - LCS

Sample ID: XQ28629-002

Batch: 28629

Matrix: Aqueous Prep Method: 3005A

Prep Date: 01/18/2022 0842

Analytical Method: 6020B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Antimony	100	97		1	97	80-120	01/18/2022 1608
Arsenic	100	98		1	98	80-120	01/18/2022 1608
Barium	100	96		1	96	80-120	01/18/2022 1608
Beryllium	100	96		1	96	80-120	01/18/2022 1608
Cadmium	100	98		1	98	80-120	01/18/2022 1608
Calcium	1000	850		1	85	80-120	01/18/2022 1608
Chromium	100	100		1	100	80-120	01/18/2022 1608
Cobalt	100	95		1	95	80-120	01/18/2022 1608
Lead	100	94		1	94	80-120	01/18/2022 1608
Selenium	100	98		1	98	80-120	01/18/2022 1608
Thallium	100	96		1	96	80-120	01/18/2022 1608

LOQ = Limit of Quantitation

ND = Not detected at or above the LOQ

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody and Miscellaneous Documents

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Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15) Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020 Page 1 of 1

Sample Propint Charles (CD C)

	Sample Receipt Checklist (SRC)	
Client: SANTEE		XA14014
Means of receipt: Pace	Client UPS FedEx Other:	72.1140.14
Yes V No I	Were custody seals present on the cooler?	
Yes No NA 2	If custody seals were present, were they intact and unbroken?	
DH Strib ID: 21-032	Chlorine Strip ID: NA	
Original temperature upon re	ccipt / Derived (Corrected) temperature upon propint 440-1140	
Total May	C NA /NA C NA /NA C	p-Cup ID: NA
Method: Temperature Bla	ank Against Bottles IR Gun ID: 5 IR Gun Correction F	0 00
Method of coolant: We	t lee 🔲 lee Packs 🔲 Dry lee 🗹 None	actor; O°C
✓ Yes No Na 3.	If temperature of any cooler exceeded 6.0°C, was Project Manager N	-ater 10
	PM was Notified by: phone (entail / face-to-face (circle one).	brined?
Yes No NA 4.	Is the commercial courier's packing slip attached to this form?	
14 163 NO 5.	Were proper custody procedures (relinquished/received) followed?	
V TES L NO	Were sample IDs listed on the COC?	
Yes No 7,	Were sample IDs listed on all sample containers?	
Y Yes LINO 8.	Was collection date & time listed on the COC?	
Yes [No 9.	Was collection date & time listed on all sample containers?	
A res Noi 10	Did all container label information (ID, date, time) agree with the Co	VOII
✓ Yes No 11	. Were tests to be performed listed on the COC?	<i>y</i> C;
Yes No (ui	Did all samples arrive in the proper containers for each test and/or in throken, lids on, etc.)?	good condition
	Was adequate sample volume available?	
Yes✓ No 14.	Were any samples received within ½ the holding time or 48 hours, wh	
Yes V No 15.	Were any samples containers missing/excess (circle one) samples No	ichever comes first?
TYes TNO VINA 16.	For VOA and RSK-175 samples, were bubbles present > "pea-size" (f listed on COC?
	and an area of Alais:	4"or 6mm in diameter)
Yes No NA 17.	Were all DRO/metals/mrtriant camples encoived at a all 10 and	
E 144 E 144 19.	were all cyanide samples received at a pH > 12 and ovice.	
☐ Yes ☐ No ☑NA 19.	Were all applicable NH ₃ /TKN/cyanide/phenoi/625.1/608.3 (< 0.5mg/	Colved at a pH > 9?
100	anai emornie;	1
☐Yes ☐ No ☑NA 20.	Were client remarks/requests (i.e. requested dilutions, MS/MSD designed transcribed from the COO internal control of the COO in the coordinate of the coordina	motions of a h
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	mations, etc)
Yes No 21.	Was the quote number listed on the container label? If yes, Quote #	
Sample Preservation (Must	be completed for any sample(s) incorrectly preserved or with headspr	
Sample(s) NA	and an income can be served or with headspa	ice,)
in sample receiving with NA	were received incorrectly preserved and we	re adjusted accordingly
Time of preservation NA	- "- " The state of the state o	
	. If more than one preservative is needed, please note in the comm	ents below.
Sample(s) NA	were received with bubbles >	6 mm in diameter
Samples(s) NA		o man in diameter.
idjusted accordingly in sample	were received with TRC > 0.5 mg/L (If #1 receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Sheaty ID: NA	9 is no) and were
SR barcode labels applied by: 9	BP Date: 01/14/2022	
Comments:	Date.	
omments.		
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Laboratory Services

Laboratory Report

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

Project: Work Order: Ground Water 1120813

Received: 12/10/2021 10:27

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 December 10, 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

Lauren Hollister

Report Approved By:

Lauren Hollister Project Manager





Certificate of Analysis

Client Santee Cooper

Linda Williams 1 Riverwood Dr.

Moncks Corner, SC 29461

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

Project: Ground Water **Work Order:** 1120813

Received: 12/10/2021 10:27

Sample Number	Sample Description	Matrix	Sampled	Type
1120813-01	AF21736 CGYP-4	Ground Water	12/06/21 09:54	Grab
1120813-02	AF21737 CGYP-4DUP	Ground Water	12/06/21 09:59	Grab
1120813-03	AF21738 CGYP-5	Ground Water	12/06/21 11:13	Grab
1120813-04	AF21739 CGYP-6	Ground Water	12/06/21 12:15	Grab
1120813-05	AF21740 WLF-A2-6	Ground Water	12/07/21 10:36	Grab
1120813-06	AF21741 WLF-A2-6DUP	Ground Water	12/07/21 10:41	Grab



Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1120813 Moncks Corner, SC 29461 12/21/21 16:12 Reported:

Sample Data

Sample Number

1120813-01

Sample Description

AF21736 CGYP-4 collected on 12/06/21 09:54

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	12/16/21 11:24	EPA 7470A	S7	ELN	B1L0817
Boron	7500	75	ug/L	5.00	12/20/21 15:05	EPA 6010D		MTH	B1L1025
Lithium	76	10	ug/L	1.00	12/20/21 15:37	EPA 6010D		MTH	B1L1025
Molybdenum	ND	10	ug/L	1.00	12/17/21 02:44	EPA 6010D		MTH	B1L0730

Sample Number

1120813-02

Sample Description AF21737 CGYP-4DUP collected on 12/06/21 09:59

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	12/16/21 11:13	EPA 7470A	S7	ELN	B1L0817
Boron	7100	75	ug/L	5.00	12/20/21 15:08	EPA 6010D		MTH	B1L1025
Lithium	75	10	ug/L	1.00	12/20/21 15:41	EPA 6010D		MTH	B1L1025
Molybdenum	ND	10	ug/L	1.00	12/17/21 03:52	EPA 6010D		MTH	B1L0730

Sample Number **Sample Description** 1120813-03

AF21738 CGYP-5 collected on 12/06/21 11:13

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	12/16/21 11:27	EPA 7470A	S7	ELN	B1L0817
Boron	4100	75	ug/L	5.00	12/20/21 15:12	EPA 6010D		MTH	B1L1025
Lithium	91	10	ug/L	1.00	12/20/21 15:45	EPA 6010D		MTH	B1L1025
Molybdenum	ND	10	ug/L	1.00	12/17/21 03:56	EPA 6010D		MTH	B1L0730

Sample Number

1120813-04

Sample Description AF21739 CGYP-6 collected on 12/06/21 12:15

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	12/16/21 11:30	EPA 7470A	S7	ELN	B1L0817
Boron	6200	75	ug/L	5.00	12/20/21 15:16	EPA 6010D		MTH	B1L1025
Lithium	150	10	ug/L	1.00	12/20/21 15:48	EPA 6010D		MTH	B1L1025
Molybdenum	ND	10	ug/L	1.00	12/17/21 04:00	EPA 6010D		MTH	B1L0730

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Santee CooperProject:Ground Water1 Riverwood Dr.Work Order:1120813Moncks Corner, SC 29461Reported:12/21/2116:12

Sample Number 1120813-05

Sample Description AF21740 WLF-A2-6 collected on 12/07/21 10:36

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	12/16/21 11:32	EPA 7470A		ELN	B1L0817
Boron	740	15	ug/L	1.00	12/20/21 14:40	EPA 6010D		MTH	B1L1025
Lithium	66	10	ug/L	1.00	12/20/21 14:40	EPA 6010D		MTH	B1L1025
Molybdenum	ND	10	ug/L	1.00	12/17/21 03:45	EPA 6010D		MTH	B1L0730

Sample Number

1120813-06

Sample Description

AF21741 WLF-A2-6DUP collected on 12/07/21 10:41

Parameter	Result	Reporting Limit	Units	DF	Analyzed	Method	Flag	Analyst	Batch
Total Metals									
Mercury	ND	0.20	ug/L	1.00	12/16/21 11:41	EPA 7470A		ELN	B1L0817
Boron	690	15	ug/L	1.00	12/20/21 14:58	EPA 6010D		MTH	B1L1025
Lithium	62	10	ug/L	1.00	12/20/21 14:58	EPA 6010D		MTH	B1L1025
Molybdenum	ND	10	ug/L	1.00	12/17/21 03:49	EPA 6010D		MTH	B1L0730



 Santee Cooper
 Project:
 Ground Water

 1 Riverwood Dr.
 Work Order:
 1120813

 Moncks Corner, SC 29461
 Reported:
 12/21/21 16:12

Total Metals **Quality Control Summary**

		Reporting		Spike	Source		%REC		RPD	
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags
Batch B1L0730 - EPA 3005A										
Blank (B1L0730-BLK1)										
Molybdenum	ND	10	ug/L							
LCS (B1L0730-BS1)			C							
Molybdenum	490	10	ug/L	500		97	80-120			
•		10	ug/L	300		91	80-120			
Duplicate (B1L0730-DUP1)	Source: 1120813-01									
Molybdenum	ND	10	ug/L		ND				20	
Matrix Spike (B1L0730-MS1)	Source: 1120813-01									
Boron	6900	15	ug/L	500	7500	NR	75-125			S3
Lithium	631	10	ug/L	500	76	111	75-125			
Molybdenum	440	10	ug/L	500	ND	89	75-125			
Post Spike (B1L0730-PS1)	Source: 1120813-01									
Molybdenum	520	10	ug/L	500	ND	103	75-125			
Batch B1L0817 - EPA 7470A										
Blank (B1L0817-BLK1)										
Mercury	ND	0.20	ug/L							
LCS (B1L0817-BS1)										
Mercury	4.9	0.20	ug/L	5.00		98	80-120			
Matrix Spike (B1L0817-MS1)	Source: 1120813-02									
Mercury	4.3	0.20	ug/L	5.00	ND	84	75-125			S7
Matrix Spike Dup (B1L0817-MSD1)	Source: 1120813-02									
Mercury	4.3	0.20	ug/L	5.00	ND	85	75-125	2	20	S7
Post Spike (B1L0817-PS1)	Source: 1120813-02									
Mercury	3.4		ug/L	4.00	ND	83	80-120			S7



Santee CooperProject:Ground Water1 Riverwood Dr.Work Order:1120813Moncks Corner, SC 29461Reported:12/21/21 16:12

Total Metals **Quality Control Summary**

	Reporting			Spike	Source		%REC		RPD		
Parameter	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Flags	
Batch B1L0817 - EPA 7470A											
Post Spike (B1L0817-PS2)	Source: 1120813-01										
Mercury	3.5		ug/L	4.00	ND	86	80-120			S7	
Post Spike (B1L0817-PS3)	Source: 1120813-03										
Mercury	3.5		ug/L	4.00	ND	87	80-120			S7	
Post Spike (B1L0817-PS4)	Source: 1120813-04										
Mercury	3.4		ug/L	4.00	ND	84	80-120			S7	
Post Spike (B1L0817-PS5)	Source: 1120813-05										
Mercury	4.0		ug/L	4.00	ND	99	80-120				
Post Spike (B1L0817-PS6)	Source: 1120813-06										
Mercury	4.0		ug/L	4.00	ND	99	80-120				
Batch B1L1025 - EPA 3005A											
Blank (B1L1025-BLK1)											
Boron	ND	15	ug/L								
Lithium	ND	10	ug/L								
LCS (B1L1025-BS1)											
Boron	520	15	ug/L	500		105	80-120				
Lithium	567	10	ug/L	500		113	80-120				
Matrix Spike (B1L1025-MS1)	Source: 1120813-05										
Boron	1200	15	ug/L	500	740	94	75-125				
Lithium	650	10	ug/L	500	66	117	75-125				
Matrix Spike Dup (B1L1025-MSD1)	Source: 1120813-05										
Boron	1200	15	ug/L	500	740	101	75-125	3	20		
Lithium	662	10	ug/L	500	66	119	75-125	2	20		
Post Spike (B1L1025-PS1)	Source: 1120813-05										
Boron	1200	15	ug/L	500	740	92	75-125				
Lithium	594	10	ug/L	500	66	106	75-125				

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Santee Cooper Ground Water Project: 1 Riverwood Dr. Work Order: 1120813 Moncks Corner, SC 29461 12/21/21 16:12 Reported:

Sample Preparation Data

Parameter	Batch	Sample ID	Prepared	Analyst	
EPA 3005A ICP Digestion					
EPA 3005A	B1L0730	1120813-01	12/13/2021 12:12	CAL	
EPA 3005A	B1L1025	1120813-01	12/20/2021 11:01	CAL	
EPA 3005A	B1L0730	1120813-02	12/13/2021 12:12	CAL	
EPA 3005A	B1L1025	1120813-02	12/20/2021 11:01	CAL	
EPA 3005A	B1L0730	1120813-03	12/13/2021 12:12	CAL	
EPA 3005A	B1L1025	1120813-03	12/20/2021 11:01	CAL	
EPA 3005A	B1L0730	1120813-04	12/13/2021 12:12	CAL	
EPA 3005A	B1L1025	1120813-04	12/20/2021 11:01	CAL	
EPA 3005A	B1L0730	1120813-05	12/13/2021 12:12	CAL	
EPA 3005A	B1L1025	1120813-05	12/20/2021 11:01	CAL	
EPA 3005A	B1L0730	1120813-06	12/13/2021 12:12	CAL	
EPA 3005A	B1L1025	1120813-06	12/20/2021 11:01	CAL	
EPA 7470A Mercury Digestion					
EPA 7470A	B1L0817	1120813-01	12/15/2021 09:28	CAL	
EPA 7470A	B1L0817	1120813-02	12/15/2021 09:28	CAL	
EPA 7470A	B1L0817	1120813-03	12/15/2021 09:28	CAL	
EPA 7470A	B1L0817	1120813-04	12/15/2021 09:28	CAL	
EPA 7470A	B1L0817	1120813-05	12/15/2021 09:28	CAL	
EPA 7470A	B1L0817	1120813-06	12/15/2021 09:28	CAL	



Santee Cooper Project: Ground Water
1 Riverwood Dr. Work Order: 1120813
Moncks Corner, SC 29461 Reported: 12/21/21 16:12

Data Qualifiers and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported

RPD Relative Percent Difference

S3 Estimated value - the spike result exceeded the calibration range. The spike recovery was not evaluated against the control limits.

S7 Result calculated by Method of Standard Addition due to sample matrix interference and initial spike failures.

Contract Lab Due Date (Lab Only): 12 / 17 / 21 Send report to lcwillia@santeecooper.com sibrown@santeecooper.com sibrown@santeecooper.co

Chain of Custody Tracking#: 8162 4067 1753 Santee cooper

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

Customer Email/Report Recipient:			Date	Date Results Needed by:				Project/Task/Unit #: Reru							un request for any flagged QC		
	WILLIA	@santee	cooper.com		J			121567 JM02.09 36500							No		
															Ana	lysis Group	
	orks ID # nal use	Sample Locati Description	on/	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)	Me Rep Mi An	thod # porting linesc. sampley other no	e info	B, Li, Mo, Hg		
OLAF Z	1736	CGYP-4		12/6/2	0754	DEN	1	P	6	6-74	2.	B, L. I	No- 6	C(0	X		
22	37	CGYP-40	UP		머위		1	1			1	Hg 74	70				
03	38	USTP-F			1113												
cy	39	CEMP-6		I	1215												
05	40	WLF- A2-6		12/7/21	1036												
06	41	NLF-A2-6	DUP	1	1041	L	1	1	1	1	1						
Relin	quished by:	Employee#	Date	Time	Receive	ed by:	En	nployee #		Date	100	Time	Samp	le Receiving (Internal P (°C): 20- 2°	Use Only)		
8919		35594	12/9/21	1500		Lex								ect pH: Yes No			
	quished by:	Employee#	Date	Time	Receive	ed by:	En	nployee #	S S.	Date		Time		rvative Lot#:			
	quished by:	Employee#	17/10/21 Date	1027 Time	Receive	ed by:	En	nployee #		/10/2 Date	1	Time					
		TALS (all)												Time/Init for preserv	ative:		
□ Ag	□ Cu	□Sb	I TO	rients	MIS D BTEX	<u>C.</u>		Wallboa	osum			Coal		<u>Flyash</u>	The Section Co.)il	
□ Al	☐ Fe		DO	c	□ Napthale				um(<i>all</i>			Utimate ☐ % Moist	ure	☐ Ammonia ☐ LOI		Olf Qual. Inters	
□ As	O K	□Sn	THE RESERVE OF THE PARTY OF THE	TPO4	☐ THM/HA☐ VOC	A		below All				□ Ash		□ % Carbon			
□В	□ Li	□ Sr	UF	3-N	□ Oil & Gre	ease		□ TOC				☐ Sulfur ☐ BTUs		☐ Mineral			
□ Ba	□ Mg		CI		☐ E. Coli ☐ Total Col	iform			l metals		Residence of	□ Volatile	Matter	Analysis Sieve	IFT Disto		
□ Be	□ Mr		I NO		□ pH □ Dissolved	I As		☐ Purit	y (CaSe		41	CHN er Tests:		□ % Moisture	Used C	H	
□ Ca	□ Mo		DNO		☐ Dissolved			☐ Sulfi	oisture tes		ОХ	RF Scan		NPDES			
□ Cd	□ Na		SO ₂	4 □ Rad 226 □ Rad 228			D pH Chlo	rides		DF	GI		D Oil & Grease				
□ Co	□ Ni □ Pb	☐ Hg			□ PCB			D Parti	cle Size			articulate Ma	itter	□ As			
LCI	LPD	□ CrVI				-11	10,12	Sulfur						□ TSS	GOFER		



Revised February 2018

Sample Receipt Verification

Client: Santee Cooper	Date Received:	12	/10/2	021	Work Order: 1120813
Carrier Name: Client FedEx UPS Tracking Number: 8162 4067	US N	Mail		Cou	urier Field Services Other:
Tracking Number	1733			1	
Receipt Criteria		Y e s	N o	N A	Comments
Shipping container / cooler intact?		Χ			Damaged Leaking Other:
Custody seals intact?				Х	
COC included with samples?		Х			
COC signed when relinquished and received?		Χ			
Sample bottles intact?		Χ			Damaged Leaking Other:
Sample ID on COC agree with label on bottle(s)?		Χ			
Date / time on COC agree with label on bottle(s)?		Χ			
Number of bottles on COC agrees with number of bottles	received?	Χ			
Samples received within holding time?		Х			
Sample volume sufficient for analysis?		Χ			
VOA vials free of headspace (<6mm bubble)?				Х	
Samples cooled? Temp at receipt recorded on COC Temp measured with IR thermometer - SN:	97050067	Χ			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 Note: Samples for O&G and VOA analysis – preservation checked at	the lab.	Х			
Samples dechlorinated for parameters requiring chlorine rethe time of sample collection? Note: Chlorine checked at bench for samples requiring Bacterial, Vonanalysis.				Х	
If in-house	preservation	used	– re	cord	Lot #
HCL	H ₃ P				
H ₂ SO ₄	NaC	DΗ			
HNO ₃	Oth	er			
Comments:					
Were non-conformance issues noted at sample receip	ot? Yes	or	(1)	(ol	
Non-Conformance issue other than noted above:					

KAB

Completed by:_____











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

March 09, 2021

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

Re: ABS Lab Analytical Work Order: 534962

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 12, 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 Project Manager

Purchase Order: 367074

Enclosures



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Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 534962 GEL Work Order: 534962

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.

	Irlie	Robinson	
Reviewed by			

Page 2 of 13 SDG: 534962

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

Certificate of Analysis

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: March 9, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Sample ID: 534962001

Matrix: Ground Water

Collect Date: 10-FEB-21 11:16

Receive Date: 12-FEB-21 Collector: Client

Client Sample ID: AE94861

Parameter	Qualifier	Result U	Incertainty	MDC	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Rad Gas Flow Propor	tional Counting	7									
GFPC, Ra228, Liquid	l "As Received"	'									
Radium-228		2.63	+/-1.27	1.79	3.00	pCi/L			LXB3 03/01/21	0949 2092726	1
Radium-226+Radium	-228 Calculation	on "See Pare	ent Products"								
Radium-226+228 Sum		3.86	+/-1.34			pCi/L		1	AEA 03/05/21	0658 2092725	2
Rad Radium-226											
Lucas Cell, Ra226, Li	iquid "As Recei	ived"									
Radium-226	•	1.23	+/-0.427	0.368	1.00	pCi/L			MXH8 02/24/21	0914 2092649	3
The following Analy	tical Methods v	vere perform	ned:								

Method Description

σ	Total	D 14	Manain al	D 0/	A 1. 1 . T
3	EPA 903.1 Modified				
2	Calculation				

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

75.2 (15%-125%)

Notes:

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 3 of 13 SDG: 534962

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

Certificate of Analysis

Report Date: March 9, 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: AE94862 Project: SOOP00119 Sample ID: 534962002 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 10-FEB-21 12:23
Receive Date: 12-FEB-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		2.04	+/-1.09	1.56	3.00	pCi/L			LXB3 03/01/21	0949 2092726	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		2.83	+/-1.15			pCi/L		1	AEA 03/05/21	0658 2092725	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226		0.796	+/-0.361	0.347	1.00	pCi/L			MXH8 02/24/21	0914 2092649	3
The following Analytic	al Methods w	ere perfo	ormed:								

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 RecoveryTestResultNominalRecovery%Acceptable LimitsBarium-133 TracerGFPC, Ra228, Liquid "As Received"80.8(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 4 of 13 SDG: 534962

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

Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: March 9, 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: AE94863 Sample ID: 534962003

Matrix: Ground Water
Collect Date: 10-FEB-21 12:28
Receive Date: 12-FEB-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Dat	e Time Batch	Method
Rad Gas Flow Proportio	onal Counting									
GFPC, Ra228, Liquid "A	As Received"									
Radium-228	U	1.14	+/-1.06	1.74	3.00	pCi/L		LXB3 03/01/	21 0949 2092726	1
Radium-226+Radium-22	28 Calculatio	n "See Pa	arent Products"							
Radium-226+228 Sum		1.90	+/-1.12			pCi/L		1 AEA 03/05/	21 0658 2092725	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"								
Radium-226		0.752	+/-0.342	0.328	1.00	pCi/L		MXH8 02/24/	21 0946 2092649	3
The following Analytical Methods were performed:										

Method Description Analyst Comments

EPA 904.0/SW846 9320 Modified
Calculation

Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

88.7 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 5 of 13 SDG: 534962

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

Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: March 9, 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: AE94864
Sample ID: 534962004
Matrix: Ground Water

Matrix: Ground Water
Collect Date: 10-FEB-21 13:38
Receive Date: 12-FEB-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		3.63	+/-1.20	1.42	3.00	pCi/L		LXB3	03/01/21	0949 2092726	1
Radium-226+Radium-2	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		4.69	+/-1.26			pCi/L		1 AEA	03/05/21	0658 2092725	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		1.05	+/-0.372	0.324	1.00	pCi/L		MXH	3 02/24/21	0946 2092649	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"

81.2 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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

QC Summary

Report Date: March 9, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 534962

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2092726 ——									
QC1204754313 534962004 DUP									
Radium-228		3.63		4.58	pCi/L	23.1		(0% - 100%) LXB3	03/01/21 09:49
	Uncertainty	+/-1.20		+/-1.47					
QC1204754314 LCS									
Radium-228	54.7			53.3	pCi/L		97.4	(75%-125%)	03/01/21 09:48
	Uncertainty			+/-3.59					
QC1204754312 MB									
Radium-228			U	-0.104	pCi/L				03/01/21 09:49
	Uncertainty			+/-0.780					
Rad Ra-226 Batch 2092649 ———									
QC1204754137 534962001 DUP									
Radium-226		1.23		1.11	pCi/L	10.4		(0% - 100%) MXH8	02/24/21 09:46
	Uncertainty	+/-0.427		+/-0.382					
QC1204754141 LCS									
Radium-226	27.0			21.8	pCi/L		80.4	(75%-125%)	02/24/21 09:47
	Uncertainty			+/-1.65					
QC1204754136 MB									
Radium-226			U	0.0979	pCi/L				02/24/21 09:46
	Uncertainty			+/-0.143					
QC1204754139 534962001 MS									
Radium-226	135	1.23		106	pCi/L		77.7	(75%-125%)	02/24/21 09:46
	Uncertainty	+/-0.427		+/-7.27					

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.

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Page 1 of 2

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

QC Summary

Workorder: 534962 Page 2 of 2 Parmname NOM Sample Qual QC Units RPD% REC% Range Anlst Date Time Н 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 REMP Result > MDC/CL and < RDL M N/A RPD or %Recovery limits do not apply. N1 See case narrative ND Analyte concentration is not detected above the detection limit Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier NJ One or more quality control criteria have not been met. Refer to the applicable narrative or DER. Q 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.

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Radiochemistry Technical Case Narrative Santee Cooper SDG #: 534962

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2092726

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

GEL Sample ID#	Client Sample Identification
534962001	AE94861
534962002	AE94862
534962003	AE94863
534962004	AE94864
1204754312	Method Blank (MB)
1204754313	534962004(AE94864) Sample Duplicate (DUP)
1204754314	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: 2092649

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

GEL Sample ID#	Client Sample Identification
534962001	AE94861
534962002	AE94862
534962003	AE94863
534962004	AE94864
1204754136	Method Blank (MB)
1204754137	534962001(AE94861) Sample Duplicate (DUP)
1204754139	534962001(AE94861) Matrix Spike (MS)
1204754141	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.

Certification Statement

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

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Chain of Custody

534962



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

Custo	Customer Email/Report Recipient:			Date	Results N	eeded i	oy:		Project/Task/Unit #: Rerun request for					quest for a	ny fla	gged
LCI	WILLIA	@sante	ecooper.com	<u> </u>	<i>J</i>			121	567	_ JN	102.0	29.601	36500	Yes No		
Labwo	orks ID#	Sample Locat		1		s I sure e e como o	W Driver Davids		···					,	Analys	s Group
1,000	nal use	Description	ion)	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	• Ro	Comments ethod # eporting limit isc. sample info ny other notes	RAD 226	RAD 228	TOTAL RAD CALC
AE9	4861	CGYP-1		2/10/2	1116	MDG	2	P	G	GW	2					
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AE 94	-864	CEYP-3			1338											+
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Αg			<u>ıvulı</u>										<u>Flyash</u>		<u>Oil</u>	
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Al As	☐ Cu ☐ Fe	□ Sb □ Se	☐ TOC ☐ DOC ☐ TP/T ☐ NH3	PO4	☐ BTEX ☐ Napthalend ☐ THM/HAA ☐ VOC	\		Gypsi below U AIM	tm(<i>a11</i>)		Į	3 % Moiste 3 Ash	re [1 LO] El % Carbon	94A Col 17 Aci	foistur ir lity	
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Laboratories LLC SAMPLE RECEIPT & REVIEW FORM Client: SOOP SDG/AR/COC/Work Order: Received By: Date Received: 17 - 7 Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other Carrier and Tracking Number Suspected Hazard Information Yes *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. ž Hazard Class Shipped: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___No___ A)Shipped as a DOT Hazardous? B) Did the client designate the samples are to be COC notation or radioactive stickers on containers equal client designation. received as radioactive? Maximum Net Counts Observed* (Observed Counts - Area Background Counts): ______CPM / mR/Hr C) Did the RSO classify the samples as radioactive? Classified as: Rad 1 Rad 2 Rad 3 COC notation or hazard labels on containers equal client designation. D) Did the client designate samples are hazardous? If D or E is yes, select Hazards below. PCB's Flammable E) Did the RSO identify possible hazards? Foreign Soil RCRA Asbestos Beryllium Sample Receipt Criteria X Comments/Qualifiers (Required for Non-Conforming Items) Shipping containers received intact and Circle Applicable: Seals broken Damaged container Leaking container Other (describe) Chain of custody documents included Circle Applicable: Client contacted and provided COC COC created upon receipt with shipment? Preservation Method: Wet Ice Ice Packs Dry ice Samples requiring cold preservation *all temperatures are recorded in Celsius TEMP: 19 C within $(0 \le 6 \text{ deg. C})$?* Daily check performed and passed on IR Temperature Device Serial #: 2 21 - 20 temperature gun? Secondary Temperature Device Serial # (If Applicable): Circle Applicable: Seals broken Damaged container Leaking container Other (describe) Sample containers intact and sealed? Samples requiring chemical preservation Sample ID's and Containers Affected: 6 at proper pH? If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes___No___ NA__(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes____ No_ Do any samples require Volatile NA__(If unknown, select No) 7 Are liquid VOA vials free of headspace? Yes____ No_ Analysis? Sample ID's and containers affected: ID's and tests affected: Samples received within holding time? Sample ID's on COC match ID's on ID's and containers affected: 9 bottles? Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) Date & time on COC match date & time 10 on hottles? Circle Applicable: No container count on COC Other (describe) Number of containers received match number indicated on COC? Are sample containers identifiable as 12 GEL provided by use of GEL labels? COC form is properly signed in Circle Applicable: Not relinquished Other (describe) relinquished/received sections? Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials MB Date 2/12/21 Page 1 of 1

List of current GEL Certifications as of 09 March 2021

Alabama	State	Certification
Alaska Drinking Water		
Arkansas	Alaska	17-018
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 (A133904) Maine 2019020 Maryland 270 Massachusetts M-SC012 Massachusetts PFAS Approv Letter Michigan 9976 Mississippi SC00012 New Hampshire NELAP 2054 New Hampshire NELAP 2054 New Hampshire NELAP 11501 <t< td=""><td>Alaska Drinking Water</td><td>SC00012</td></t<>	Alaska Drinking Water	SC00012
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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	Nevada	SC000122021-1
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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		SC002
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	New Mexico	SC00012
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	New York NELAP	11501
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	North Carolina	233
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	North Carolina SDWA	45709
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	North Dakota	R-158
Puerto Rico SC00012 S. Carolina Radiochem 10120002 Sanitation Districts of L 9255651 South Carolina Chemistry 10120001 Tennessee TN 02934 Texas NELAP T104704235-21-19	Oklahoma	2019–165
S. Carolina Radiochem 10120002 Sanitation Districts of L 9255651 South Carolina Chemistry 10120001 Tennessee TN 02934 Texas NELAP T104704235-21-19	Pennsylvania NELAP	68-00485
S. Carolina Radiochem 10120002 Sanitation Districts of L 9255651 South Carolina Chemistry 10120001 Tennessee TN 02934 Texas NELAP T104704235-21-19	1	
Sanitation Districts of L 9255651 South Carolina Chemistry 10120001 Tennessee TN 02934 Texas NELAP T104704235-21-19		
South Carolina Chemistry 10120001 Tennessee TN 02934 Texas NELAP T104704235-21-19		
Tennessee TN 02934 Texas NELAP T104704235-21-19		
Texas NELAP T104704235-21-19		
Utali NELAI SCUU122020-34	Utah NELAP	SC000122020-34
Vermont VT87156		
Virginia NELAP 460202	Virginia NELAP	
Washington C780		











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

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May 05, 2021

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

Re: ABS Lab Analytical Work Order: 540415

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 09, 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 Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 540415 GEL Work Order: 540415

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.

	Irlie	Roberson		
Reviewed by				

Page 2 of 16 SDG: 540415

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

Certificate of Analysis

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: May 5, 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: AF00633
Sample ID: 540415001
Matrix: Ground Water

Collect Date: 07-APR-21 11:06
Receive Date: 09-APR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		5.66	+/-1.81	2.39	3.00	pCi/L		LXB3	04/26/21	1145 2114215	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		6.37	+/-1.83			pCi/L		1 AEA	05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		0.713	+/-0.274	0.254	1.00	pCi/L		LXP1	04/22/21	0915 2114169	3
The following Analytic	al Methods w	ere nerfo	rmed:								

Method Description

2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recov	erv Test	Result	Nominal	Recoverv%	Acceptable Limits

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

59.9 (15%-125%)

Notes:

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 3 of 16 SDG: 540415

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

Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: May 5, 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: AF00629
Sample ID: 540415002
Matrix: Ground Water
Collect Date: 07-APR-21 12:16

Receive Date: 09-APR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	2.81	+/-1.83	2.94	3.00	pCi/L		LXB3	04/20/21	1203 2114215	1
Radium-226+Radium-22	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		3.89	+/-1.86			pCi/L		1 AEA	05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		1.08	+/-0.346	0.330	1.00	pCi/L		LXP1	04/22/21	0915 2114169	3
The following Analytic	al Methods w	ere perfo	rmed:								

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"

62.4 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 4 of 16 SDG: 540415

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

Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: May 5, 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: AF00630
Sample ID: 540415003
Matrix: Ground Water
Collect Date: 07-APR-21 13:16

Receive Date: 09-APR-21 Collector: Client

Parameter	Qualifier	Result U	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Propor	tional Counting	3									
GFPC, Ra228, Liquid	l "As Received"	•									
Radium-228		3.91	+/-1.58	2.18	3.00	pCi/L		LXB3	04/20/21	1021 2114215	5 1
Radium-226+Radium	-228 Calculation	on "See Pare	ent Products"								
Radium-226+228 Sum		4.18	+/-1.59			pCi/L		1 AEA	05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, Li	iquid "As Recei	ived"									
Radium-226	U	0.272	+/-0.226	0.347	1.00	pCi/L		LXP1	04/22/21	0947 2114169	3
The fellowing Analy	tical Mathada u	riana manfani	mad.								

The following	Analytical Methods were performed:	
Method	Description	Analyst Comments

EPA 904.0/SW846 9320 Modified Calculation

3 EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			58.5	(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

Page 5 of 16 SDG: 540415

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

Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: May 5, 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: AF00631 Sample ID: 540415004 Matrix: Ground Water

Matrix: Ground Water
Collect Date: 07-APR-21 13:21
Receive Date: 09-APR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proporti	ional Counting										
GFPC, Ra228, Liquid	"As Received"										
Radium-228		4.76	+/-1.81	2.41	3.00	pCi/L		LXB3	04/20/21	1021 2114215	1
Radium-226+Radium-	228 Calculatio	n "See Pa	rent Products"								
Radium-226+228 Sum		5.05	+/-1.82			pCi/L		1 AEA	05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, Lic	quid "As Recei	ved"									
Radium-226	•	0.290	+/-0.191	0.247	1.00	pCi/L		LXP1	04/22/21	0947 2114169	3
The following Analyti	ical Methods w	ere perfo	rmed:								

Method Description Analyst Comments		_	•	-		
	Method		Descri	ption	Analy	st Comments

EPA 904.0/SW846 9320 Modified Calculation

3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test		Result	Nominal	Recovery%	Acceptable Limits	
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			56.1	(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: May 5, 2021

SOOP00119

SOOP001

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: AF00632 Project: Sample ID: 540415005 Client ID:

Matrix: Ground Water
Collect Date: 07-APR-21 14:20
Receive Date: 09-APR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid "As Received"											
Radium-228		7.50	+/-1.99	2.74	3.00	pCi/L		LXB3	04/26/21	1145 2114215	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		7.93	+/-2.01			pCi/L		1 AEA	05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		0.433	+/-0.240	0.312	1.00	pCi/L		LXP1	04/22/21	0947 2114169	3
The following Analytic	al Methods w	ere perfo	ormed:								

The following i	marytical 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"

50.7 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: May 5, 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: AF00634
Sample ID: 540415006
Matrix: Ground Water
Collect Date: 07-APR-21 15:09

Receive Date: 09-APR-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	2.33	+/-1.60	2.50	3.00	pCi/L		LXB3	3 04/20/21	1021 2114215	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	rent Products"								
Radium-226+228 Sum		2.84	+/-1.62			pCi/L		1 AEA	05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, Liquid "As Received"											
Radium-226		0.506	+/-0.261	0.295	1.00	pCi/L		LXP1	04/22/21	0947 2114169	3
The following Analytic	al Methods w	ere perfo	rmed:								

Method	Description	Analyst Comments
1	EDA 004 0/9W946 0220 Modified	

2 Calculation

3 EPA 903.1 Modified
Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Surrogate/Tracer Recovery Test Result Nominal Recovery Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 59.6 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 8 of 16 SDG: 540415

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

Certificate of Analysis

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: May 5, 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: AF00635
Sample ID: 540415007
Matrix: Ground Water
Collect Date: 07-APR-21 16:02

Collect Date: 07-APR-21 1
Receive Date: 09-APR-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proporti	ional Counting	5									
GFPC, Ra228, Liquid	"As Received"										
Radium-228		2.83	+/-1.53	2.19	3.00	pCi/L		LXB3	04/20/21	1021 2114215	1
Radium-226+Radium-	228 Calculatio	n "See Pa	rent Products"								
Radium-226+228 Sum		3.68	+/-1.55			pCi/L		1 AEA	05/05/21	0724 2117539	2
Rad Radium-226											
Lucas Cell, Ra226, Liquid "As Received"											
Radium-226		0.850	+/-0.266	0.189	1.00	pCi/L		LXP1	04/22/21	0947 2114169	3
TP1 - C-11 - 1 - A - 1 4	1 3 / . /1 1.		1.								

The following Analytical Methods were performed:

Method Description

2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recover	ry Test	Result	Nominal	Recovery%	Acceptable Limits

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

53.1 (15%-125%)

Notes:

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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

QC Summary

Report Date: May 5, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 540415

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2114215 ——									
QC1204793535 540415006 DUP Radium-228	U	2.33		4.22	pCi/L	57.7		(0% - 100%) LXB3	04/20/21 10:21
Rautum-220	Uncertainty	+/-1.60		+/-1.79	pCI/L	31.1		(0% - 100%) LAB3	04/20/21 10.21
QC1204793536 LCS									
Radium-228	53.8			52.3	pCi/L		97.2	(75%-125%)	04/20/21 10:24
	Uncertainty			+/-3.29					
QC1204793534 MB									
Radium-228			U	-1.71	pCi/L				04/20/21 10:20
	Uncertainty			+/-1.16					
Rad Ra-226 Batch 2114169 ———									
QC1204793424 540415001 DUP									
Radium-226		0.713		0.672	pCi/L	5.99		(0% - 100%) LXP1	04/22/21 10:20
	Uncertainty	+/-0.274		+/-0.268					
QC1204793426 LCS									
Radium-226	27.0			22.8	pCi/L		84.3	(75%-125%)	04/22/21 10:20
	Uncertainty			+/-1.49					
QC1204793423 MB									
Radium-226			U	0.133	pCi/L				04/22/21 10:20
	Uncertainty			+/-0.184					
QC1204793425 540415001 MS									
Radium-226	135	0.713		105	pCi/L		77.2	(75%-125%)	04/22/21 10:20
	Uncertainty	+/-0.274		+/-6.54					

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.

Page 10 of 16 SDG: 540415

Page 1 of 2

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

QC Summary

Workorder: 540415 Page 2 of 2 Parmname NOM Sample Qual QC Units RPD% REC% Range Anlst Date Time Н 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 REMP Result > MDC/CL and < RDL M N/A RPD or %Recovery limits do not apply. N1 See case narrative ND Analyte concentration is not detected above the detection limit Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier NJ One or more quality control criteria have not been met. Refer to the applicable narrative or DER. Q 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

- 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.
- ٨ 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

UL

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.

Page 11 of 16 SDG: 540415

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 540415

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2114215

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

GEL Sample ID#	Client Sample Identification
540415001	AF00633
540415002	AF00629
540415003	AF00630
540415004	AF00631
540415005	AF00632
540415006	AF00634
540415007	AF00635
1204793534	Method Blank (MB)
1204793535	540415006(AF00634) Sample Duplicate (DUP)
1204793536	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 540415002 (AF00629) was recounted to verify sample results. Recount is reported. Samples 540415001 (AF00633) and 540415005 (AF00632) were re-eluted and recounted to verify sample results. The recounts are reported.

Product: Lucas Cell, Ra226, Liquid Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2114169

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

GEL Sample ID#	Client Sample Identification
540415001	AF00633
540415002	AF00629

Page 12 of 16 SDG: 540415

540415003	AF00630
540415004	AF00631
540415005	AF00632
540415006	AF00634
540415007	AF00635
1204793423	Method Blank (MB)
1204793424	540415001(AF00633) Sample Duplicate (DUP)
1204793425	540415001(AF00633) Matrix Spike (MS)
1204793426	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, 1204793425 (AF00633MS), 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.

Page 13 of 16 SDG: 540415

Chain of Custody 540415



Santee Cooper One Riverwood Drive Moneks Comer, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

	Custom	Customer Email/Report Recipient:		Date	Results No		P	roject,	/Task/	Rerun reque	Rerun request for any flagged QC							
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Laboratories LLC SAMPLE RECEIPT & REVIEW FORM
SDG/AR/COC/Work Order: 540415 Client: SOOP STACY BOONE Received By: Date Received: 9-APRIL-21 Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Carrier and Tracking Number Suspected Hazard Information *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___No___ A)Shipped as a DOT Hazardous? B) Did the client designate the samples are to be COC notation or radioactive stickers on containers equal client designation. received as radioactive? Maximum Net Counts Observed* (Observed Counts - Area Background Counts): C) Did the RSO classify the samples as Classified as: Rad 1 Rad 2 Rad 3 radioactive? COC notation or hazard labels on containers equal client designation. D) Did the client designate samples are hazardous? If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil E) Did the RSO identify possible hazards? RCRA Asbestos Beryllium Sample Receipt Criteria Y 2 Comments/Qualifiers (Required for Non-Conforming Items) Shipping containers received intact and Circle Applicable: Seals broken Damaged container Leaking container Other (describe) Chain of custody documents included Circle Applicable: Client contacted and provided COC COC created upon receipt with shipment? Preservation Method: Wet Ice Ice Packs Dry ice None Other: Samples requiring cold preservation темр:_13 с *all temperatures are recorded in Celsius within $(0 \le 6 \text{ deg. C})$?* Daily check performed and passed on IR Temperature Device Serial #:_ temperature gun? Secondary Temperature Device Serial # (If Applicable): Circle Applicable: Seals broken Damaged container Leaking container Other (describe) Sample containers intact and sealed? Sample ID's and Containers Affected: Samples requiring chemical preservation 6 at proper pH? If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes__No__NA__(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No__ NA__(If unknown, select No) Do any samples require Volatile 7 Are liquid VOA vials free of headspace? Yes No NA. Analysis? Sample ID's and containers affected: ID's and tests affected: Samples received within holding time? ID's and containers affected: Sample ID's on COC match ID's on 9 bottles? Date & time on COC match date & time Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) 10 on bottles? Number of containers received match Circle Applicable: No container count on COC Other (describe) number indicated on COC? Are sample containers identifiable as GEL provided by use of GEL labels? COC form is properly signed in Circle Applicable: Not relinquished Other (describe) relinquished/received sections? Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials NRL5 Date 4/12/21 Page 1 of 1

List of current GEL Certifications as of 05 May 2021

Alabama	State	Certification
Alaska Drinking Water		
Arkansas	Alaska	17-018
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 (A133904) Maine 2019020 Maryland 270 Massachusetts M-SC012 Massachusetts PFAS Approv Letter Michigan 9976 Mississippi SC00012 New Hampshire NELAP 2054 New Hampshire NELAP 2054 New Hampshire NELAP 11501 <t< td=""><td>Alaska Drinking Water</td><td>SC00012</td></t<>	Alaska Drinking Water	SC00012
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Connecticut	California	2940
DoD ELAP/ ISO17025 A2LA	Colorado	SC00012
Florida NELAP	Connecticut	PH-0169
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Vermont VT87156		
Virginia NELAP 460202	Virginia NELAP	
Washington C780		











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

June 14, 2021

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

Re: ABS Lab Analytical Work Order: 544910

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 18, 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 Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 544910 GEL Work Order: 544910

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.

	Inlie	Robinson	
Reviewed by			

Page 2 of 15 SDG: 544910

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

Certificate of Analysis

Report Date: June 14, 2021

SOOP00119

SOOP001

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: AF03568 Project:
Sample ID: 544910001 Client ID:

Matrix: Ground Water
Collect Date: 13-MAY-21 14:39
Receive Date: 18-MAY-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		4.82	+/-1.56	2.09	3.00	pCi/L		LXB3	06/04/21	0853 2132499	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		5.84	+/-1.61			pCi/L		1 AEA	06/11/21	0421 2133508	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226		1.02	+/-0.399	0.446	1.00	pCi/L		LXP1	06/02/21	0835 2131978	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 RecoveryTestResultNominalRecovery%Acceptable LimitsBarium-133 TracerGFPC, Ra228, Liquid "As Received"86.5(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 3 of 15 SDG: 544910

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

Certificate of Analysis

Report Date: June 14, 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: AF03569 Project: SOOP00119 Sample ID: 544910002 Client ID: SOOP001

Matrix: Ground Water
Collect Date: 13-MAY-21 14:44
Receive Date: 18-MAY-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ana	lyst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		3.55	+/-1.40	1.98	3.00	pCi/L		LXB	3 06/04/21	0853 2132499	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		4.60	+/-1.45			pCi/L		1 AEA	06/11/21	0421 2133508	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		1.05	+/-0.378	0.304	1.00	pCi/L		LXP	06/02/21	0835 2131978	3
The following Analytic	al Methods w	ere perfo	ormed:								

The following Analytical Methods were performed:

Method Description Analyst Comments

EPA 904.0/SW846 9320 Modified Calculation

3 EPA 903.1 Modified
Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

Result Nominal Recovery Acceptable Limits

87.4 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

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

Project:

Client ID:

SOOP00119

SOOP001

Report Date: June 14, 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: AF03570
Sample ID: 544910003
Matrix: Ground Water
Collect Date: 13-MAY-21 16:00

Receive Date: 18-MAY-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF A	nalyst Date	Time Batch	Method
Rad Gas Flow Proportio	onal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	0.581	+/-1.16	2.03	3.00	pCi/L		L	XB3 06/04/21	0853 2132499	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		1.50	+/-1.21			pCi/L		1 A	EA 06/11/21	0421 2133508	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		0.915	+/-0.338	0.233	1.00	pCi/L		L	XP1 06/02/21	0907 2131978	3
The following Analytic	al Methods w	ere perfo	ormed:								

Method Description Analyst Comments

EPA 904.0/SW846 9320 Modified Calculation

EPA 903.1 Modified

Surrogate/Tracer RecoveryTestResultNominalRecovery%Acceptable LimitsBarium-133 TracerGFPC, Ra228, Liquid "As Received"86.4(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: June 14, 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: AF03571
Sample ID: 544910004
Matrix: Ground Water
Collect Date: 13-MAY-21 16:55

Receive Date: 18-MAY-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ana	lyst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		4.79	+/-1.16	1.17	3.00	pCi/L		LXB	3 06/04/21	0853 2132499	1
Radium-226+Radium-22	28 Calculation	n "See Par	rent Products"								
Radium-226+228 Sum		6.31	+/-1.23			pCi/L		1 AEA	06/11/21	0421 2133508	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226		1.52	+/-0.417	0.323	1.00	pCi/L		LXP	06/02/21	0907 2131978	3
The following Analytic	al Methods w	ere perfor	rmed:								

EPA 904.0/SW846 9320 Modified Calculation

3 EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			94.4	(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: June 14, 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: AF03572
Sample ID: 544910005
Matrix: Ground Water
Collect Date: 13-MAY-21 11:20

Receive Date: 18-MAY-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting	;									
GFPC, Ra228, Liquid ".	As Received"										
Radium-228	U	0.377	+/-1.03	1.82	3.00	pCi/L		LXB3	06/04/21	0853 2132499	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		0.691	+/-1.04			pCi/L		1 AEA	06/11/21	0421 2133508	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		0.313	+/-0.192	0.200	1.00	pCi/L		LXP1	06/02/21	0907 2131978	3
The following Analytic	al Methods w	vere perfo	ormed:								

Method Description

2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recov	erv Test	Result	Nominal	Recovery%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 91.5 (15%-125%)

Notes:

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 7 of 15 SDG: 544910

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

Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: June 14, 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: AF03573
Sample ID: 544910006
Matrix: Ground Water
Collect Date: 13-MAY-21 11:25

Receive Date: 18-MAY-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	0.310	+/-1.22	2.18	3.00	pCi/L		LXB3	06/04/21	0853 2132499	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		0.540	+/-1.24			pCi/L		1 AEA	06/11/21	0421 2133508	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226	U	0.230	+/-0.194	0.282	1.00	pCi/L		LXP1	06/02/21	0907 2131978	3
The following Analytic	al Methods w	ere perf	rmed:								

The following Analytical Methods were performed:

MethodDescriptionAnalyst Comments1EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer RecoveryTestResultNominalRecovery%Acceptable LimitsBarium-133 TracerGFPC, Ra228, Liquid "As Received"87.2(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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

QC Summary

Report Date: June 14, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 544910

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range A	Anlst	Date	Time
Rad Gas Flow Batch 2132499											
QC1204831024 544910004 DUP		4.70		4.25	C:/I	11.0		(00/ 1000/)	LVD2	06/04/2	1 00 52
Radium-228	Uncertainty	4.79 +/-1.16		4.25 +/-1.19	pCi/L	11.9		(0% - 100%)	LXB3	06/04/2	1 08:52
QC1204831025 LCS											
Radium-228	52.1 Uncertainty			49.6 +/-3.38	pCi/L		95.1	(75%-125%)		06/04/2]	1 08:52
QC1204831023 MB Radium-228			U	0.0515	pCi/L					06/04/21	1 08:52
	Uncertainty			+/-0.799							
Rad Ra-226 Batch 2131978											
QC1204829924 544910001 DUP Radium-226		1.02		1.10	pCi/L	7.73		(0%-20%)	LXP1	06/02/2	1 09:07
	Uncertainty	+/-0.399		+/-0.350							
QC1204829926 LCS Radium-226	26.8			21.2	pCi/L		79.1	(750/ 1250/)		06/02/21	1 00.29
Radium-220	Uncertainty			+/-1.46	pCI/L		79.1	(75%-125%)		06/02/2	1 09:38
QC1204829923 MB Radium-226			U	0.000	pCi/L					06/02/21	1 09:07
Kadium-220	Uncertainty			+/-0.127	pel/L					00/02/2	1 07.07
QC1204829925 544910001 MS Radium-226	130	1.02		105	pCi/L		79.8	(75%-125%)		06/02/21	1 09:38
Rudum 220	Uncertainty	+/-0.399		+/-7.55	PC#E		77.0	(7370 12370)		00,02,2	. 05.50

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.

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Page 1 of 2

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

QC Summary

Workorder: 544910 Page 2 of 2 Parmname NOM Sample Qual QC Units RPD% REC% Range Anlst Date Time Н 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 REMP Result > MDC/CL and < RDL M N/A RPD or %Recovery limits do not apply. N1 See case narrative ND Analyte concentration is not detected above the detection limit Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier NJ One or more quality control criteria have not been met. Refer to the applicable narrative or DER. Q 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.

Page 10 of 15 SDG: 544910

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 544910

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2132499

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

GEL Sample ID#	Client Sample Identification
544910001	AF03568
544910002	AF03569
544910003	AF03570
544910004	AF03571
544910005	AF03572
544910006	AF03573
1204831023	Method Blank (MB)
1204831024	544910004(AF03571) Sample Duplicate (DUP)
1204831025	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: 2131978

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

GEL Sample ID#	Client Sample Identification
544910001	AF03568
544910002	AF03569
544910003	AF03570
544910004	AF03571
544910005	AF03572
544910006	AF03573
1204829923	Method Blank (MB)
1204829924	544910001(AF03568) Sample Duplicate (DUP)
1204829925	544910001(AF03568) Matrix Spike (MS)
1204829926	Laboratory Control Sample (LCS)

Page 11 of 15 SDG: 544910

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, 1204829925 (AF03568MS), 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.

Page 12 of 15 SDG: 544910

Customer Email/Report Recipient:

Chain of Custody



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

Custo	mer Emai	/Report Recip	ient:	Date	Results N	eeded b	y:		P	roject,	/Task/	/Unit #	:		Rerun	request	for a	ny fla	agged C
LCV	VILLIA	@santee	ecooper.com	n	J	/		12/5	567	<u> </u>	102.0	9.6ø	<u>'</u>	3650	0_	Yes	No		•
Labura	rks ID#	T 6				S 1 177 S 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· ·										4	Analys	is Group
(Internonly)		Sample Locat Description	ion/	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	o o o o	Misc.	Comm od # ting limit sample in ther notes	fo	19/10/11	KAD 226	RAD 228	TOTAL RAD CALC
AF03	568	CGYP-4		5/13/21	1439	MDE	2	P	G	GW	2						Х	×	Х
AFOE	3569	CGYP-4 1	DUP		1444	(}		1	(1	
Atos	i5 70	CeAb-2			1600												\parallel		
AF03	57	CGYP-6			16 55										,				
AF03	572	WLF - A2 -	6		1120	1													
AF03	573	WLF-A-2-6	DUP		1125					1					······································				1
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A10w	uished by:	35594	5/18/2	Time	Receive	ed by:		ployee f		Date		Time		Sample Re TEMP (°	ceiving (i C):	nternai U 1	se Oni nitial:	y) 	
	ulshed by:	Employee#	Date	O911 Time	Receive	d by:		GEL ployee #		/18/2 Date	1	O9 Time		Correct p	H: Yes	No			
genety.	ished by:	Employee#	SIGN.	157 s	July (1) Receive	Bata	leu (EQ ployee #	-	Date	M I	らみ Time	5	Preservat	ive Lot#:				
Choune Service						000000000000000000000000000000000000000								Date/Time	e/Init for	preservat	ive:		
□Ag	□ ME′	ΓALS (all) □ Sb	<u>Nut</u>	rients	MIS	<u>C.</u>		Gyp	sum			Co	al		Flyasi			Oil	
□ Al	□ Fe	□ Se	± 10		D BTEX		EΝ	Vallboa	rď			Itimate	e	Ď	Ammoni		Tran	. OII (Qual.
□As	□K	□Sn	U DO	TPO4	☐ Napthalen☐ THM/HA.			Gypsi below				□ % Mi □ Ash	oisture	0	LOI.	- 18		Moistu	
□В	□ Li	□Sr	□ NH	3-N	□ VOC □ Oil & Gre	ace		O AIM			B 45000000000000000000000000000000000000	⊔ Asıı □ Sulfu	r		% Carbor Mineral	0	Ac	dely	
□ В а	□Mg	□Ti	D CI		🗆 E. Coli			☐ TOC ☐ Total	metals			D BTU			Analy	sis	JF1		nength
□ Be	□Mn	□ TI	nyo		☐ Total Coli ☐ pH	form		O Solul O Purit				□ Volat □ CHN			Sieve % Moiste				Gases
□ Ca	□Мо	□V	L Br		☐ Dissolved			⊕%M	dsture	, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Ott	ier Tesi	is:		70 MOISIL	nc	Used	i OII dipola	ı
□ Cd	□Na	□ Zn	□ NO □ SO-	NEWSCHOOL STREET	☐ Dissolved ☐ Rad 226	re		⊖ Sulfit UpH	es:		OX OH	RF Scan GI			NPDES		Me	lals in	
The second second second second	□Ni	□Hg			□ Rad 228□ PCB			Chlor Partic			□Fi	neness		- 100 - 100	Dil & Grea	se 🏻	110	1	
□ Co	I man					ro-curtou e santalese Se se li Gille	MICROSOPHICS AND	massing and School Sec.				irticulate	OF THE PARTY OF TH		33	gan (COTA) A BANG	· TX	DATE OF STREET	STATE OF THE PARTY

GEE Laboratories u.c	SAMPLE DECENTED OF THE PROPERTY OF THE PROPERT
Clienti	SAMPLE RECEIPT & REVIEW FORM
Received By: TVe	SDC/AR/COC/Work Onlers HHM10/544911
Carrier and Tracking Number	Date Received: Ct-de Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other
Suspected Hazard Information	2 off Net Counts > 100cpm on samples not nearked "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? YesNo
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):CPM / mR/Efr
D) Did the client designate samples are hazardous?	COC notation or hazard labels on containers equal client designation. 150 or E is yes, select Hazards below.
E) Did the RSO identify possible hazards?	PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
Sample Receipt Criteria	[2] < 0
Shipping containers received intact and seated?	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 fee Ice Packs Dry fee None Other: "all temperatures are provided in Celsius" TEMP: C. L. C. C. L.
Daily check performed and passed on IR temperature gun?	Temperature Device Serial #: AIR3-19 Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and scaled?	Circle Applicable: Seals broken Damaged container Leaking container Other (describe):
Samples requiring chemical preservation at proper pH?	Sample ID's and Containers Affected:
Do any samples require Volatile Analysis?	If Preservation added, Loth: 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) Act liquid VOA vials free of headspace? Yes No NA Sample IDs and containers affected:
Samples received within holding time?	ID's and tests affected:
Sample ID's on COC match ID's on bottles?	LD's and containers affected:
Date & time on COC match date & time on bottles?	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
Number of containers received match number indicated on COC? Are sample containers identifiable as	Circle Applicable: No container count on COC Other (describe)
GEL provided by use of GEL labels?	
[relinquished/received sections?]	Circle Applicable: Not relinquished Other (describe)
nments (Use Continuation Form if needed):	
PM (or PMA) no	wine trivial NTC - Calculations of

List of current GEL Certifications as of 14 June 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
asimigton	2.00











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

August 05, 2021

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

Re: ABS Lab Analytical Work Order: 549284

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 09, 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 Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 549284 GEL Work Order: 549284

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.

	Irlie	Robinson	
Reviewed by			

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

Certificate of Analysis

Project:

Client ID:

SOOP00119

SOOP001

Report Date: August 5, 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: AF07267 Sample ID: 549284001

Matrix: Ground Water
Collect Date: 07-JUL-21 10:31
Receive Date: 09-JUL-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	1.61	+/-1.45	2.39	3.00	pCi/L		JXC9	08/03/21	1323 2152169	1
Radium-226+Radium-22	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		2.77	+/-1.50			pCi/L		1 AEA	08/05/21	0501 2152172	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226		1.17	+/-0.382	0.394	1.00	pCi/L		LXP1	07/22/21	1020 2149561	3
The following Analytic	al Methods w	ere perfo	ormed:								

_	•	
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"

77.6 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

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

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: August 5, 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: AF07268
Sample ID: 549284002
Matrix: Ground Water
Collect Date: 07-JUL-21 11:28

Receive Date: 09-JUL-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proport	tional Counting	ŗ									
GFPC, Ra228, Liquid	"As Received"	'									
Radium-228	U	1.92	+/-1.25	1.95	3.00	pCi/L		JXC9	08/03/21	1323 2152169	1
Radium-226+Radium-	-228 Calculatio	on "See Pa	rent Products"								
Radium-226+228 Sum		2.50	+/-1.28			pCi/L		1 AEA	08/05/21	0501 2152172	2
Rad Radium-226											
Lucas Cell, Ra226, Li	quid "As Recei	ived"									
Radium-226	-	0.578	+/-0.235	0.177	1.00	pCi/L		LXP1	07/22/21	1020 2149561	3
FF1 6.11 1 4 1											

The following Analytical Methods were performed:

Method Description

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

Surrogate/Tracer RecoveryTestResultNominalRecovery%Acceptable LimitsBarium-133 TracerGFPC, Ra228, Liquid "As Received"81.5(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

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

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: August 5, 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: AF07269
Sample ID: 549284003
Matrix: Ground Water

Matrix: Ground Water
Collect Date: 07-JUL-21 11:33
Receive Date: 09-JUL-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Propor	tional Counting										
GFPC, Ra228, Liquid	l "As Received"										
Radium-228		2.31	+/-1.04	1.43	3.00	pCi/L		JXC9	08/03/21	1324 2152169	1
Radium-226+Radium	-228 Calculatio	n "See Par	rent Products"								
Radium-226+228 Sum		3.07	+/-1.09			pCi/L		1 AEA	08/05/21	0501 2152172	2
Rad Radium-226											
Lucas Cell, Ra226, Li	iquid "As Recei	ved"									
Radium-226	_	0.762	+/-0.302	0.261	1.00	pCi/L		LXP1	07/22/21	1020 2149561	3
The following Analys	tical Mathada u	ara narfar	rmad.								

The following Analytical Methods were performed:

Description

	/T T	D 1		D 0/	A 1.1 . T	
3	EPA 903.1 Modified					
2	Calculation					
1	EPA 904.0/SW846 9320 Modified		-			
						_

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

83.4 (15%-125%)

Notes:

Method

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

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

Project:

Client ID:

SOOP00119

SOOP001

Report Date: August 5, 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: AF07270
Sample ID: 549284004
Matrix: Ground Water
Collect Date: 07-JUL-21 13:38

Receive Date: 09-JUL-21 Collector: Client

Parameter	Oualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	vst Date	Time Batch	Method
			- Chicarity			C III IS		21 111141	, 50 2 410	Time Butch	
Rad Gas Flow Proportion	onal Counting	5									
GFPC, Ra228, Liquid ".	As Received"										
Radium-228		3.79	+/-1.73	2.52	3.00	pCi/L		JXC9	08/03/21	1443 2152169	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		5.03	+/-1.76			pCi/L		1 AEA	08/05/21	0501 2152172	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		1.24	+/-0.358	0.238	1.00	pCi/L		LXP1	07/22/21	1020 2149561	3
FF1 6 11 1 1 1 1 1	137.1.1	c									

The following Analytical Methods were performed:

MethodDescriptionAnalyst Comments1EPA 904.0/SW846 9320 Modified2Calculation

EPA 903.1 Modified

Surrogate/Tracer RecoveryTestResultNominalRecovery%Acceptable LimitsBarium-133 TracerGFPC, Ra228, Liquid "As Received"78.3(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

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

Project:

Client ID:

SOOP00119

SOOP001

Report Date: August 5, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Sample ID: 549284005

Matrix: Ground Water

Collect Date: 08-JUL-21 10:26

Receive Date: 09-JUL-21 Collector: Client

Client Sample ID: AF07271

Parameter	Qualifier	Result U	Incertainty	MDC	RL	Units	PF	DF Analy	yst Date	Time Batch	Method
Rad Gas Flow Propor	tional Counting	7									
GFPC, Ra228, Liquid	l "As Received"	1									
Radium-228		2.51	+/-1.05	1.36	3.00	pCi/L		JXC9	08/03/21	1324 2152169	1
Radium-226+Radium	-228 Calculation	on "See Pare	ent Products"								
Radium-226+228 Sum		3.56	+/-1.10			pCi/L		1 AEA	08/05/21	0501 2152172	2
Rad Radium-226											
Lucas Cell, Ra226, Li	iquid "As Recei	ived"									
Radium-226		1.05	+/-0.338	0.206	1.00	pCi/L		LXP1	07/22/21	1020 2149561	3
The fellowing Angle	4: 1 M - 41 1										

The following Analytical Methods were performed:

MethodDescriptionAnalyst Comments1EPA 904.0/SW846 9320 Modified

2 Calculation 3 EPA 903.1 Modified

Surrogate/Tracer RecoveryTestResultNominalRecovery%Acceptable LimitsBarium-133 TracerGFPC, Ra228, Liquid "As Received"80.5(15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

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

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: August 5, 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: AF07272
Sample ID: 549284006
Matrix: Ground Water

Matrix: Ground Water
Collect Date: 08-JUL-21 11:24
Receive Date: 09-JUL-21
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Ana	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	0.366	+/-0.907	1.63	3.00	pCi/L		JXC9	08/03/21	1324 2152169	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		0.706	+/-0.934			pCi/L		1 AEA	08/05/21	0501 2152172	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		0.340	+/-0.223	0.289	1.00	pCi/L		LXP1	07/22/21	1020 2149561	3
The following Analytic	al Mathode w	ara narfa	rmad.								

The following Analytical Methods were performed:

Description

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Page 1 Nominal Recovery% Acceptable Limits

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

81.7 (15%-125%)

Notes:

Method

1

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

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

Project:

Client ID:

Analyst Comments

SOOP00119

SOOP001

Report Date: August 5, 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: AF07273
Sample ID: 549284007
Matrix: Ground Water

Collect Date: 08-JUL-21 12:21
Receive Date: 09-JUL-21
Collector: Client

Parameter	Qualifier	Result U	Uncertainty	MDC	RL	Units	PF	DF Ana	yst Date	Time Batch	Method
Rad Gas Flow Propor	tional Counting										
GFPC, Ra228, Liquid	"As Received"										
Radium-228		4.24	+/-1.28	1.48	3.00	pCi/L		JXC	08/03/21	1324 2152169	1
Radium-226+Radium	-228 Calculatio	n "See Pare	ent Products"								
Radium-226+228 Sum		6.08	+/-1.37			pCi/L		1 AEA	08/05/21	0501 2152172	2
Rad Radium-226											
Lucas Cell, Ra226, Li	quid "As Recei	ved"									
Radium-226		1.85	+/-0.476	0.391	1.00	pCi/L		LXP	07/22/21	1102 2149561	3
The following Analys	tical Mathada u	ara narfari	madi								

The following Analytical Methods were performed:

Description

2 Calculation
3 EPA 903.1 Modified
5 Control (Toron Program Toron Program Toron Program Progra

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

80.9 (15%-125%)

Notes:

Method

1

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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

QC Summary

Report Date: August 5, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 549284

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow Batch 2152169 ———										
QC1204867006 549896006 DUP Radium-228	U	0.643		2.48	pCi/L	118*		(0% 100%)	IVC0	08/03/21 13:23
Kaululli-220	Uncertainty	+/-0.875		+/-1.28	pel/L	110		(0% - 100%)	JACA	08/03/21 13.23
QC1204867008 LCS										
Radium-228	51.6			55.6	pCi/L		108	(75%-125%)		08/03/21 13:23
	Uncertainty			+/-3.74						
QC1204867005 MB										
Radium-228			U	1.39	pCi/L					08/03/21 13:23
	Uncertainty			+/-1.02						
QC1204867007 549896006 MS		0.440			~. ·		400	/===:		00/00/01/14
Radium-228	156 U	0.643		161	pCi/L		103	(75%-125%)		08/03/21 14:43
	Uncertainty	+/-0.875		+/-11.9						
Rad Ra-226 Batch 2149561 ———										
QC1204862383 548894001 DUP Radium-226		0.413	U	0.344	pCi/L	18.2		(0% - 100%)	I XP1	07/22/21 11:02
Radium-220	Uncertainty	+/-0.226	Ü	+/-0.250	реид	10.2		(070 - 10070)	L2XI 1	07/22/21 11.02
		., 0.220		., 0.200						
QC1204862385 LCS Radium-226	26.8			24.2	pCi/L		90.5	(75%-125%)		07/22/21 11:02
Radium-220	Uncertainty			+/-1.49	pci/L		70.5	(7370-12370)		07/22/21 11.02
	Chechanity			.,,						
QC1204862382 MB				0.176	C: /I					07/02/21 11 02
Radium-226	Uncertainty		U	0.176 +/-0.182	pCi/L					07/22/21 11:02
	Oncertainty			+/-0.162						
QC1204862384 548894001 MS										
Radium-226	134	0.413		101	pCi/L		75.5	(75%-125%)		07/22/21 13:10
	Uncertainty	+/-0.226		+/-6.78						

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

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Page 1 of 2

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

QC Summary

Page 2 of 2

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

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

> Result is greater than value reported

549284

- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

Workorder:

- 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.

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Radiochemistry Technical Case Narrative Santee Cooper SDG #: 549284

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2152169

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

GEL Sample ID#	Client Sample Identification
549284001	AF07267
549284002	AF07268
549284003	AF07269
549284004	AF07270
549284005	AF07271
549284006	AF07272
549284007	AF07273
1204867005	Method Blank (MB)
1204867006	549896006(NonSDG) Sample Duplicate (DUP)
1204867007	549896006(NonSDG) Matrix Spike (MS)
1204867008	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
ı	1204867006 (Non SDG 549896006DUP)	Radium-228	RPD 118* (0.0%-100.0%) RER 2.15 (0-3)

Technical Information

Recounts

Sample 1204867007 (Non SDG 549896006MS) was recounted due to high recovery. The recount is reported. Sample 549284004 (AF07270) was recounted to verify sample results. Recount is reported.

Miscellaneous Information

Additional Comments

Page 12 of 16 SDG: 549284

The matrix spike, 1204867007 (Non SDG 549896006MS), aliquot was reduced to conserve sample volume.

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

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

Analytical Batch: 2149561

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

GEL Sample ID#	Client Sample Identification
549284001	AF07267
549284002	AF07268
549284003	AF07269
549284004	AF07270
549284005	AF07271
549284006	AF07272
549284007	AF07273
1204862382	Method Blank (MB)
1204862383	548894001(AF07246) Sample Duplicate (DUP)
1204862384	548894001(AF07246) Matrix Spike (MS)
1204862385	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 1204862384 (AF07246MS) was recounted due to low recovery. The recount is reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1204862384 (AF07246MS), 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.

Page 13 of 16 SDG: 549284

Jena report to levimore same ecooperican a suprown as a s	Contract Lab Info: GEL	Contract Lab Due Date (Lab Only):	8	16	1 21	Send report to Icwillia@santeecooper.com & sjbrown@santeecoope
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Chain of Custody

549284



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

Customer Emai	I/Report Recipient:	Date	Results Needed	by:		Proje	ect/T	ask/Ur	nit #:		Rerun request	for a	ny fla	agged Q
LCWILLIA	@santeecooper.co	m	11_		1215	67/	JM	P0.50	.GØ1	/ 36500	Yes	No		
													Analys	is Group
Labworks ID # (internal use only)	Sample Location/ Description	Collection Date	Collection Time	Total # of containers	Bottle type: (Glass-G/Plastic-P)	Grab (G) or Composite (C)	Matrix(see below)	vative (s	RejMis	Commen thod # porting limit sc. sample info y other notes		RAD 226	KAD 228	1878-L RAD COLC.
AF07267	CGYP-I	7/7/2	1 1031 BRT	2	P (3 G	w.	2				X	X	X
AF07268	CGYP-2		1128				1	1						
AF07269	CGYP-8 DUP		1183											
AF07270	CGYP-3		1338						······································	V				
AF 0729H	CGYP-4	7/8/2	1 1026 NOG BRT						к'					
AF07272	CGYP-5	di 75 ese	1124						. Tropics					
AF07273	CGYP-6	1	1221	1.					sing state				1	<u> </u>
									~~					
												-		
Relinquished by:	Employee# Date	Time	Received by:	Emp	loyee#	1	Date		Time		eiving (Internal L):			
Sproun	85594 7/9/21	094	All	ه	}EL	7/	7/21	- C	741	Correct pH: Yes No		***************************************		
Relinquished by:	Employee# Date	Time	Received by:	Emp	loyee#	t	Date		Time					
Relinquished by:	Employee# Date	///// Time	Received by:		EC_		2 2-1		1 4 Time	Preservativ	e Lot#:			
				-	1				and distinguish of the control of th	Date/Time/	Init for preserva	tive:		
□ Ag □ Co □ Al □ Fe □ Ba □ M □ Ca □ M □ Cd □ Na □ Cc □ Ni □ Cc □ Pb	Sb	l O2 r O3	MISC. BTEX Napthalene THM/HAA VOC Oil & Grease E. Coli Total Coliform pH Dissolved As Dissolved Fe Rad 226 Rad 228 PCB		Gypsu Gypsu Gypsu Gypsu G AlM TOC Total i Solubl Furny M Mol Suffice G Suffice G JpH T Chlorin Particl uthir	d m(all metals e Metals (CaSO4 sture s		Othe CXR		ure DI S DI	G Carbon Mineral Analysis leve Moisture NPDES Il & Grease	T GA	Moisi aidity aidity assolve d Oil ashpot orals it as Cd, as	Oual, ture Succepts d Gases

GEE Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Ci	ent: SOAB	-		SDG/AR/COC/Work Order: 549284
	12 300			
Re	ceived By: Accep Down	4		Date Received: Yuly 4, 202
	Carrier and Tracking Number			Ciricle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other
Su	spected 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? YesNo
B) rec	Did the client designate the samples are to be eived as radioactive?		_	COC notation or radioactive stickers on containers equal client designation.
	Did the RSO classify the samples as loactive?			Maximum Net Counts Observed* (Observed Counts - Area Background Counts):CPM / mR/Hr Classified as: Rad 1
<u>(a</u>	Did the client designate samples are hazardous?		_	COC notation or hazard labels on containers equal client designation.
E)	Did the RSO identify possible hazards?		1	PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:
L	Sample Receipt Criteria	Yes	NA	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	^		Circle Applicable: Seals broken Daniaged 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 $(0 \le 6 \text{ deg. C})$?*			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 2164
4	Daily check performed and passed on IR temperature gun?			Temperature Device Serial #: [
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#:
	Do any samples require Volatile			If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No)
7	Analysis?			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 indicated on COC?	1		Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	1		
13	COC form is properly signed in	1		Circle Applicable: Not relinquished Other (describe)
Co	iments (Use Continuation Form if needed):	لب		
	•			

L				nitials Date 7/17/21 Page of
	PM (or PM/	r) rev	new:	muaus Date Page of

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 05 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
Vermont Virginia NELAP	460202
Washington	C780
vv asinington	C/80











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

October 01, 2021

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

Re: ABS Lab Analytical Work Order: 554912

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 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 Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 554912 GEL Work Order: 554912

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.

	Irlie	Robinson	
Reviewed by			

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

Certificate of Analysis

Project:

Client ID:

Report Date: October 1, 2021

SOOP00119

SOOP001

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: AF13775
Sample ID: 554912001
Matrix: Ground Water
Collect Date: 31-AUG-21 10:01
Receive Date: 03-SEP-21

Receive Date: 03-SEF Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proport	tional Counting	<u> </u>								
GFPC, Ra228, Liquid	"As Received'	•								
Radium-228	U	1.29	+/-0.875	1.32	3.00	pCi/L		JXC9 09/29/2	1 1316 2172977	1
Radium-226+Radium	-228 Calculation	on "See Pa	arent Products"							
Radium-226+228 Sum		1.85	+/-0.912			pCi/L		NXL1 10/01/2	1 0524 2176408	2
Rad Radium-226										
Lucas Cell, Ra226, Li	quid "As Recei	ived"								
Radium-226	•	0.559	+/-0.257	0.214	1.00	pCi/L		LXP1 09/29/2	1 1005 2172980	3
The following Analyt	ical Methods v	vere perfo	ormed:							
Madaad	Danamination						A 1			

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

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 3 of 15 SDG: 554912

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

Certificate of Analysis

Project:

Client ID:

Analyst Comments

82.4

(15%-125%)

Report Date: October 1, 2021

SOOP00119

SOOP001

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: AF13776 Sample ID: 554912002 Matrix: Ground Water Collect Date: 31-AUG-21 11:02

Receive Date: 03-SEP-21 Client Collector:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proporti	onal Counting	5								
GFPC, Ra228, Liquid '	'As Received'	1								
Radium-228		4.04	+/-1.52	2.07	3.00	pCi/L		JXC9 09/29/2	1 1316 2172977	1
Radium-226+Radium-2	228 Calculation	n "See Pa	rent Products"							
Radium-226+228 Sum		5.53	+/-1.58			pCi/L		NXL1 10/01/2	1 0524 2176408	2
Rad Radium-226										
Lucas Cell, Ra226, Liq	uid "As Recei	ved"								
Radium-226		1.49	+/-0.418	0.364	1.00	pCi/L		LXP1 09/29/2	1 1005 2172980	3
The following Analytic	cal Methods v	vere perfo	rmed:							

Description

2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recove	ery Test	Result	Nominal	Recovery%	Acceptable Limits

Notes:

Barium-133 Tracer

Method

1

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

GFPC, Ra228, Liquid "As Received"

EPA 904.0/SW846 9320 Modified

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

Page 4 of 15 SDG: 554912

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

Certificate of Analysis

Report Date: October 1, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Client

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Client Sample ID: AF13777
Sample ID: 554912003
Matrix: Ground Water
Collect Date: 01-SEP-21 12:40
Receive Date: 03-SEP-21

Client ID: SOOP001

SOOP00119

Project:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting									
GFPC, Ra228, Liquid "A	As Received"									
Radium-228	U	-0.925	+/-0.794	1.76	3.00	pCi/L		JXC9 09/29/21	1316 2172977	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		0.295	+/-0.814			pCi/L		NXL1 10/01/21	0524 2176408	2
Rad Radium-226										
Lucas Cell, Ra226, Liquid "As Received"										
Radium-226		0.295	+/-0.180	0.188	1.00	pCi/L		LXP1 09/29/21	1005 2172980	3
The following Analytic	al Methods w	ere perfo	ormed:							

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	•

2 Calculation 3 EPA 903.1 Modified

Collector:

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

Page 5 of 15 SDG: 554912

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Certificate of Analysis

Report Date: October 1, 2021

SOOP00119

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: AF13778
Sample ID: 554912004
Matrix: Ground Water
Collect Date: 01-SEP-21 12:45
Receive Date: 03-SEP-21

Client

Client ID: SOOP001

Project:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportional Counting										
GFPC, Ra228, Liquid "A	As Received"									
Radium-228	U	0.100	+/-0.903	1.68	3.00	pCi/L		JXC9 09/29/2	1 1316 2172977	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		0.632	+/-0.934			pCi/L		NXL1 10/01/2	1 0524 2176408	2
Rad Radium-226										
Lucas Cell, Ra226, Liquid "As Received"										
Radium-226		0.532	+/-0.238	0.194	1.00	pCi/L		LXP1 09/29/2	1 1005 2172980	3
The following Analytics	al Methods w	ere perfo	ormed:							

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	

EPA 904.0/SW846 9320 Modified Calculation

3 EPA 903.1 Modified

Collector:

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

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Project:

Client ID:

Analyst Comments

Report Date: October 1, 2021

SOOP00119

SOOP001

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: AF13773
Sample ID: 554912005
Matrix: Ground Water
Collect Date: 01-SEP-21 09:04
Receive Date: 03-SEP-21

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid "A	As Received"									
Radium-228		3.97	+/-1.63	2.33	3.00	pCi/L		JXC9 09/29/21	1316 2172977	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		4.64	+/-1.65			pCi/L		NXL1 10/01/21	0524 2176408	2
Rad Radium-226										
Lucas Cell, Ra226, Liquid "As Received"										
Radium-226		0.669	+/-0.278	0.213	1.00	pCi/L		LXP1 09/29/21	1005 2172980	3
The following Analytic	al Methods w	ere perfo	ormed:							

2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recove	ry Test	Result	Nominal	Recovery%	Acceptable Limits

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limit Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 81.1 (15%-125%)

Notes:

Method

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

EPA 904.0/SW846 9320 Modified

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

Description

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 7 of 15 SDG: 554912

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Certificate of Analysis

Project:

Client ID:

Report Date: October 1, 2021

SOOP00119

SOOP001

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: AF13774
Sample ID: 554912006
Matrix: Ground Water
Collect Date: 01-SEP-21 09:09

Receive Date: 03-SEP-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proporti	onal Counting	<u>, </u>								
GFPC, Ra228, Liquid	'As Received'	'								
Radium-228		2.79	+/-1.48	2.23	3.00	pCi/L		JXC9 09/29/21	1317 2172977	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		3.57	+/-1.52			pCi/L		NXL1 10/01/21	0524 2176408	2
Rad Radium-226										
Lucas Cell, Ra226, Liq	uid "As Recei	ived"								
Radium-226	•	0.773	+/-0.343	0.408	1.00	pCi/L		LXP1 09/29/21	1005 2172980	3
The following Analytical Methods were performed:										
Method	Description					I	Analys	st Comments		

1	EPA 904.0/SW846 9320 Modified				
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recove	erv Test	Result	Nominal	Recoverv%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 82 (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

Page 8 of 15 SDG: 554912

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

QC Summary

Report Date: October 1, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 554912

Parmname	NOM	Sample (Qual QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow Batch 2172977 ——									
QC1204907460 554912001 DUP Radium-228	U	1.29	2.7	1 pCi/L	70.8		(0% - 100%)	IXC0	09/29/21 13:16
Radidili 220	Uncertainty	+/-0.875	+/-1.0	•	70.0		(070 10070)	3710)	07/27/21 13:10
QC1204907461 LCS									
Radium-228	49.7		54	•		110	(75%-125%)		09/29/21 13:16
	Uncertainty		+/-4.0	1					
QC1204907459 MB									
Radium-228			U -1.1	•					09/29/21 13:16
	Uncertainty		+/-1.1	9					
Rad Ra-226 Batch 2172980 ———									
QC1204907477 554912001 DUP									
Radium-226		0.559	0.31	6 pCi/L	55.4		(0% - 100%)	LXP1	09/29/21 10:37
	Uncertainty	+/-0.257	+/-0.21	9					
QC1204907475 LCS									
Radium-226	26.8		22	1 pCi/L		82.5	(75%-125%)		09/29/21 10:37
	Uncertainty		+/-1.4	8					
QC1204907472 MB									
Radium-226			U 0.38						09/29/21 10:05
	Uncertainty		+/-0.27	5					
QC1204907476 MB									
Radium-226			U 0.14						09/29/21 10:37
	Uncertainty		+/-0.24	1					
QC1204907474 554912001 MS									
Radium-226	133	0.559	10			80.9	(75%-125%)		09/29/21 10:37
	Uncertainty	+/-0.257	+/-7.7	4					

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

Page 9 of 15 SDG: 554912

Page 1 of 2

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

QC Summary

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

> Result is greater than value reported

554912

- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

Workorder:

- 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.

Page 10 of 15 SDG: 554912

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 554912

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2172977

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

GEL Sample ID#	Client Sample Identification
554912001	AF13775
554912002	AF13776
554912003	AF13777
554912004	AF13778
554912005	AF13773
554912006	AF13774
1204907459	Method Blank (MB)
1204907460	554912001(AF13775) Sample Duplicate (DUP)
1204907461	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: 2172980

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

GEL Sample ID#	Client Sample Identification
554912001	AF13775
554912002	AF13776
554912003	AF13777
554912004	AF13778
554912005	AF13773
554912006	AF13774
1204907472	Method Blank (MB)
1204907474	554912001(AF13775) Matrix Spike (MS)
1204907475	Laboratory Control Sample (LCS)
1204907476	Method Blank (MB)

Page 11 of 15 SDG: 554912

1204907477

554912001(AF13775) Sample Duplicate (DUP)

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

Data Summary:

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

Miscellaneous Information

Additional Comments

The matrix spike, 1204907474 (AF13775MS), aliquot was reduced to conserve sample volume.

Certification Statement

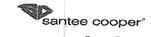
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page 12 of 15 SDG: 554912

Customer Email/Report Recipient:

Chain of Custody

554912



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

Customer Email/Report Recipient:		Date F	Date Results Needed by:				Project/Task/Unit #:						Rerun request for any flagged Q					
LCW	ILLIA	@santed	ecooper.com		//		•	121	567	<u>/_/\</u>	102.	09. Gg	<u> </u>	_ Yes	No			
·															7	Analy:	is Group	
Labworks (Internal i only)	感性情况 机工工工 化	Sample Locat Description	ion/	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	•	Comment Method # Reporting limit Misc. sample info Any other notes	S	RAD 226			
AFI37	75	CGYP-5		8/31/21	1001	DEW	2-	P	G	GW	2		-		×.	X		
AF137	7-6	CGYP-6			1102		2								Π	\prod		
AF137	7-7-	WLF - 42	-6	9/1/21	1240		a								S Carrier Street Sensitive	\prod		
AF137	7-8	WLF A2-	6 DUP	L	1245		9											
AF137	7-3	CGYP-4			0904		2											
AF 137-	14	CGYP-4	DUP		0909	Ŀ	a	y = 44	Ţ		Ţ	Alie se	11.8848.		1		廿	
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Relinquisi	ned by:	Employee#	Date	Time	Receive	ed by:	En	ployee t	4	Date		Time	Sample Recei	ving (Internal Us	se On	ly)		٦
Sprow	1	35594	9/3/21	0945	100			GEL 9/3/21 0945			 I was a minimum of the control of the	<u> </u>	nitial	<u> </u>				
Relinquist	ed by:	Employee#	Date	Time	Receive	d by:	En	ployee #		Date		Time	Correct pH:	Yes No				
MI		Call	87-21	11/16	33C		16	25	9	1512	1 1	200	Preservative	Lot#:				
Relinquish	ed by:	Employee#	" Date	Time	Receive	d by:	Em	ployee#		Date		Time						
				24.75.7				antes de					Date/Time/In	nit for preservat	ive:			
. [□ Ag		TALS (all)	Nutr	ients	MIS	c.		Gvr	sum			Co		Cash T				
□ Ag □ Al	□ Cu □ Fe	☐ Sb	— DTO	20.000 200 DOMESTIC SALES CONT. 200	BTEX		16	Wallboa	rd		οu	<u></u> Itimate		<u>lvash</u> moma	Tres	<u>01</u> . m	Oual.	
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□В	□Li	□ Sr	UNH		VOC Oil & Gre	ace		U AIN	ı		\$25,000 BX LSUN	a Asu I Sulfur		Carbon neral		ide.		
∃Ba	□ Mg	□Ti	□ □ F □ □ CI	E	E. Coli				l metals			BTUs		Analysis	- 11			
∃Ве	□ Mn	□ TI	6 NO2		Total Coli pH	iorm			ble Mei v (CaSC			∃ Volati ∃ CHN	le Matter 🗇 Sie	ve Moisture		renie.	i Ouses	
∃ Ca	□Мо	υV	Br 1 NO3	E	Dissolved Dissolved			D.% M	oisture		Oth	er Test	· [****	, cualing	Fla	alepear		
∃ Cd	□ Na	□ Zn	U SO4		Rad 226	I.C		C Suffi 5pH	tes		□ XI □ HC	RF Scan H	<u> </u>	PDES			uit PN Ph	
J C o	□ Ni	□Hg			Rad 228 PCB			Chlor			D Fit	icness		& Grease	Hip	9		
] Cr	□РЬ	□ CrVI			• ••		11	a Partic Sulfur	ne Sizë		LI Pa	rticulate l	Matter As CLISS		(30)			3



SK

Client: Soc			SAMPLE RECEIPT & REVIEW FORM
	<u> </u>		SDG/AR/COC/Work Order: 55 4912
Received By: BE	•		Date Received: 9/03/2(
Carrier and Tracking Number			FedEx Express FedEx Ground UPS Field Services Courier Other
Suspected Hazard Information	Yes	°Z	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
uShipped as a DOT Hazardous?		1	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes No
) Did the client designate the samples are to be eccived as radioactive?	:	1	COC notation or radioactive stickers on containers equal client designation.
) Did the RSO classify the samples as dioactive?		1	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): CPM/ mR/Hr Classified as: Rad 1 Rad 2 Rad 3
) Did the client designate samples are hazardor	ıs?	\	COC notation or hazard labels on containers equal client designation.
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	olic.
Shipping containers received intact and sealed?		_	Z Comments/Qualifiers (Required for Non-Conforming Items) Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
Chain of custody documents included with shipment?			Circle Applicable: Client contacted and provided COC COC created upon receipt
Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$?*			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius Metals Contained TEMP: 21 Temperature Device Serial #:182.21
Daily check performed and passed on IR temperature gun?	V		Temperature Device Serial #: IR2-21 Secondary Temperature Device Serial # (If Applicable):
Sample containers intact and scaled?			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
Samples requiring chemical preservation at proper pH?			Sample ID's and Containers Affected: If Preservation added, Lot#:
Do any samples require Volatile Analysis?			If Yes, are Encores or Soil Kits present for solids? YesNoNA(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? YesNoNA(If unknown, select No) Are liquid VOA vials free of headspace? YesNoNA Sample ID's and containers affected:
Samples received within holding time?	7		ID's and tests affected:
Sample ID's on COC match ID's on bottles?			ID's and containers affected:
Date & time on COC match date & time on bottles?			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
number indicated on COC?			Circle Applicable: No container count on COC Other (describe)
GEL provided by use of GEL labels? COC form is properly signed in			Circle Applicable: Not relinquished Other (describe)
on bottles? Number of containers received match number indicated on COC? Are sample containers identifiable as GEL provided by use of GEL labels?			Circle Applicable: No container count on COC Other (describe)

List of current GEL Certifications as of 01 October 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
	1 2,00











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

October 26, 2021

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

Re: ABS Lab Analytical Work Order: 557483

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 01, 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,

Nina Gampe for Julie Robinson Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 557483 GEL Work Order: 557483

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.

	Mim ongre	
Reviewed by	V	

Page 2 of 15 SDG: 557483

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

Certificate of Analysis

Project:

Client ID:

Analyst Comments

Report Date: October 26, 2021

SOOP00119

SOOP001

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: AF15787 Sample ID: 557483001 Ground Water Matrix: Collect Date: 27-SEP-21 09:38

Receive Date: 01-OCT-21 Client Collector:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analysi	t Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid ".	As Received"										
Radium-228		4.29	+/-1.18	1.30	3.00	pCi/L		JXC9	10/13/21	0851 2181317	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		5.29	+/-1.23			pCi/L		1 AEA	10/26/21	1418 2181322	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		1.00	+/-0.364	0.248	1.00	pCi/L		LXP1	10/26/21	1049 2181313	3
The following Analytic	al Methods w	ere perfo	ormed:								

The following	Analytical Met	noas were per	formea:

Description

1	EPA 904.0/S w 846 9320 Modified				
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recov	erv Test	Regult	Nominal	Recovery%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 87.4 (15%-125%)

Method

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

Page 3 of 15 SDG: 557483

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

Certificate of Analysis

Report Date: October 26, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Client

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Client Sample ID: AF15788
Sample ID: 557483002
Matrix: Ground Water
Collect Date: 27-SEP-21 09:43
Receive Date: 01-OCT-21

Client ID: SOOP001

Analyst Comments

SOOP00119

Project:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting	,									
GFPC, Ra228, Liquid "	As Received"										
Radium-228		3.87	+/-1.50	2.13	3.00	pCi/L		JXC9	10/13/21	0851 2181317	1
Radium-226+Radium-2	228 Calculation	n "See Pa	arent Products"								
Radium-226+228 Sum		4.54	+/-1.53			pCi/L		1 AEA	10/26/21	1418 2181322	2
Rad Radium-226											
Lucas Cell, Ra226, Liq	uid "As Recei	ved"									
Radium-226		0.672	+/-0.280	0.214	1.00	pCi/L		LXP1	10/26/21	1049 2181313	3
The following Analytic	cal Methods w	ere perfo	rmed:								

Method Description

2 Calculation
3 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limit Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 81.4 (15%-125%)

Notes:

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

Collector:

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

Page 4 of 15 SDG: 557483

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

Certificate of Analysis

Report Date: October 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: AF15789
Sample ID: 557483003
Matrix: Ground Water
Collect Date: 27-SEP-21 11:17
Receive Date: 01-OCT-21

Client

Project: SOOP00119 Client ID: SOOP001

Analyst Comments

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid ".	As Received"										
Radium-228		1.95	+/-1.03	1.51	3.00	pCi/L		JXC9	10/13/21	0851 2181317	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		2.76	+/-1.08			pCi/L		1 AEA	10/26/21	1418 2181322	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		0.805	+/-0.326	0.348	1.00	pCi/L		LXP1	10/26/21	1049 2181313	3
The following Analytic	al Methods w	ere perfo	ormed:								

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation

3 EPA 903.1 Modified

Collector:

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			86	(15%-125%)

Notes

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 5 of 15 SDG: 557483

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

Certificate of Analysis

Report Date: October 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: AF15790
Sample ID: 557483004
Matrix: Ground Water
Collect Date: 27-SEP-21 12:32
Receive Date: 01-OCT-21

Client

Project: SOOP00119 Client ID: SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		5.96	+/-1.43	1.61	3.00	pCi/L		JXC9	10/15/21	0949 2181317	7 1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"								
Radium-226+228 Sum		7.93	+/-1.51			pCi/L		1 AEA	10/26/21	1418 2181322	2 2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		1.97	+/-0.480	0.408	1.00	pCi/L		LXP1	10/26/21	1049 2181313	3
The following Analytic	al Methods w	ere perfo	rmed:								

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"			86.3	(15%-125%)

Notes:

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

Column headers are defined as follows:

Collector:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 6 of 15 SDG: 557483

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

Certificate of Analysis

Project:

Client ID:

Report Date: October 26, 2021

SOOP00119

SOOP001

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: AF15791
Sample ID: 557483005
Matrix: Ground Water
Collect Date: 28-SEP-21 10:21
Receive Date: 01-OCT-21

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analys	st Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting	,									
GFPC, Ra228, Liquid ".	As Received"										
Radium-228	U	0.384	+/-0.688	1.21	3.00	pCi/L		JXC9	10/13/21	0852 2181317	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		0.805	+/-0.742			pCi/L		1 AEA	10/26/21	1418 2181322	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		0.421	+/-0.277	0.370	1.00	pCi/L		LXP1	10/26/21	1049 2181313	3
The following Analytic	al Methods w	ere perfo	ormed:								
3.6.1.1								~			

Method	Description		Analyst Co	omments	
1	EPA 904.0/SW846 9320 Modified		-		
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Rec	overy Test	Result	Nominal	Recoverv%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 93.3 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 7 of 15 SDG: 557483

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

Certificate of Analysis

Report Date: October 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: AF15792 Sample ID: 557483006 Matrix: Ground Water Collect Date: 28-SEP-21 10:26 Receive Date: 01-OCT-21

Client

Project: Client ID: SOOP001

SOOP00119

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid ".	As Received"										
Radium-228	U	1.73	+/-1.54	2.52	3.00	pCi/L		JXC9	10/13/21	1040 2181317	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		2.29	+/-1.57			pCi/L		1 AEA	10/26/21	1418 2181322	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"									
Radium-226		0.556	+/-0.339	0.473	1.00	pCi/L		LXP1	10/26/21	1049 2181313	3
The following Analytic	cal Methods w	ere perfor	rmed:								

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

EPA 903.1 Modified

Collector:

Surrogate/Tracer Recovery Result Nominal Acceptable Limits Test Recovery% Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 84.6 (15%-125%)

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

Page 8 of 15 SDG: 557483

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

QC Summary

Report Date: October 26, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 557483

Parmname	NOM	Sample Qua	ıl QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2181317 ———								
QC1204923921 557483002 DUP Radium-228		3.87	1.94	pCi/L	66.3		(0% - 100%) JXC9	10/13/21 08:50
Addish 220	Uncertainty	+/-1.50	+/-1.03	Penz	00.5		(0,0 100,0) 51105	10/13/21 00:30
QC1204923922 LCS								
Radium-228	49.5		48.5	pCi/L		98	(75%-125%)	10/13/21 08:51
	Uncertainty		+/-3.32					
QC1204923920 MB								
Radium-228		U	0.548	pCi/L				10/13/21 08:51
	Uncertainty		+/-0.740					
Rad Ra-226 Batch 2181313 ———								
QC1204923908 557483001 DUP								
Radium-226		1.00	0.704	pCi/L	35.1		(0% - 100%) LXP1	10/26/21 10:49
	Uncertainty	+/-0.364	+/-0.332					
QC1204923910 LCS								
Radium-226	26.7		25.6	pCi/L		95.6	(75%-125%)	10/26/21 11:21
	Uncertainty		+/-1.66					
QC1204923907 MB								
Radium-226	**	U	0.260	pCi/L				10/26/21 10:49
	Uncertainty		+/-0.272					
QC1204923909 557483001 MS								
Radium-226	134	1.00	153	pCi/L		113	(75%-125%)	10/26/21 11:21
	Uncertainty	+/-0.364	+/-9.26					

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.

Page 9 of 15 SDG: 557483

Page 1 of 2

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

QC Summary

Page 2 of 2

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

557483

J Value is estimated

Workorder:

- 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.

Page 10 of 15 SDG: 557483

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 557483

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2181317

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

GEL Sample ID#	Client Sample Identification
557483001	AF15787
557483002	AF15788
557483003	AF15789
557483004	AF15790
557483005	AF15791
557483006	AF15792
1204923920	Method Blank (MB)
1204923921	557483002(AF15788) Sample Duplicate (DUP)
1204923922	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 557483006 (AF15792) was recounted to verify sample results. Recount is reported. Sample 557483004 (AF15790) was re-eluted and recounted to verify sample result. The recount is reported.

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

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

Analytical Batch: 2181313

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

Client Sample Identification
AF15787
AF15788
AF15789
AF15790

Page 11 of 15 SDG: 557483

557483005	AF15791
557483006	AF15792
1204923907	Method Blank (MB)
1204923908	557483001(AF15787) Sample Duplicate (DUP)
1204923909	557483001(AF15787) Matrix Spike (MS)
1204923910	Laboratory Control Sample (LCS)

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

Data Summary:

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

Preparation Information

Homogenous Matrix

Samples 557483005 (AF15791) and 557483006 (AF15792) were non-homogenous matrix.

Miscellaneous Information

Additional Comments

The matrix spike, 1204923909 (AF15787MS), aliquot was reduced to conserve sample volume.

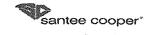
Certification Statement

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.

Page 12 of 15 SDG: 557483

Chain of Custody

557483



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

Customer Email/Report Recipient:			Date R	Results Needed by: Project/Task/Unit #:						Rerun request for any flagged QC								
LCWILLIA	r	@santeeco	ooper.com		·			1215	567	MC_/	02.0	7- GØ1	1 36500	Yes	No			
	,														<u>A</u>	nalysi	s Grou	<u>p</u>
Labworks ID # (Internal use only)	1.07097	mple Locatio	V	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	RepMis	Commer hod # orting limit c. sample info other notes		RAD 226	KAD 228	TOTAL RAD CALC	
AF15787	a	SIP-4		9/27/2	प अड्ड	DEW	4	P	G	GW	2				X	Х	X	
AF15788		SYP-4 DU	IP		6943	<u> </u>	-		_	1	-							
AF15789	0	GYP-5			1117		-		-		-							
AF157-90		GYP-6		<u> </u>	1232		-			-								
AF15791	W	LF-A2-6	··· /·· /··· /··· /··· /··· /··· /·· /·	9/28/21	1021		-			-	-					-		
AF15792	w	LF-A2-6	DUP		1026	1	1	<u> </u>	<u> </u>	-	<u> </u>			ve de la constante de la const			7	
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				<u> </u>	<u> </u>	<u> </u>		<u></u>	<u></u>	<u></u>	<u> </u>	1	Sample Pe	ceiving (Internal L	Ise On	lu)		
Relinquished	by:	Employee#	Date	Time	Recei	ved by:	E	mployee	≥#	Date	9	Time	TEMP (°	C):	Initial	!:		
Sprown		35594	10/1/21	0945	M	2		GEL	-	10/1/2	4	0945	Correct	H: Yes No				
Relinquished	by:	Employee#	Date	Time	Recei	ved by:	E	mployee	÷#	Date		Time	Land Harriage					
Me		ELL	10131	1120	j D	机		TE L		<i>O 1</i>	To the second management of	//22 Time	Preservat	ive Lot#:				
Kelinquished	l by:	Employee#	Date	fime	Recei	ved by:	, E	mployee	**	Date	3	Title	Date/Tim	e/Init for preserv	ative:			
☐ Ag ☐ ☐ Al ☐ ☐ As ☐ ☐ B ☐ ☐ Ba ☐ ☐ Ca ☐ ☐ Cd ☐ ☐ Co ☐ ☐ ☐ ☐	MET. Cu Fe K Li Mg Mn Mo	ALS (all) Sb	O TO	C TPO4 3-N 2	MI DATEX Napthal THM/FI VOC Oil & C E Coli Total C DH Dissolv Rad 222 Rad 222 PCB	IAA irease oliform ed As ed Fe 6		I Wallb Gyj belo D A B To D R U So O Pl D W E Si D Si D Si D Si D Si D Si D Si D Si D	DSHM(a) LIM DC otal inet oligible for unity (C) Moistr ulfities k blorides unite S	all als tetals aSO4) tre		Coal Ultimate % Mois Ash Sulfur BTUs Volatile CHN Other Tests: XRF Scan HGI Fineness Particulate M	ture	Flyash Ammonia LOI % Carbon Mineral Analysis Sieve % Moisture NPDES Oil & Grease As TSS		eddar Lafer Laddy Laddy Discol Cd C Laddy Laddy	ill Qua	

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM Client: SDG/AR/COC/Work Order: Received By: Date Received: Circle Applicable FedEx Express FedEx Ground UPS Field Services Courier Carrier and Tracking Number Suspected Hazard Information *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Š UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___No__ A)Shipped as a DOT Hazardous? B) Did the client designate the samples are to be COC notation or radioactive stickers on containers equal client designation. received as radioactive? Maximum Net Counts Observed* (Observed Counts - Area Background Counts): _____CPM / mR/Hr C) Did the RSO classify the samples as radioactive? Classified as: Rad 1 Rad 2 Rad 3 EOC notation or hazard labels on containers equal client designation. D) Did the client designate samples are hazardous? If D or E is yes, select Hazards below. E) Did the RSO identify possible hazards? Flammable Foreign Soil RCRA Asbestos Beryllium Sample Receipt Criteria Z g Comments/Qualifiers (Required for Non-Conforming Items) Shipping containers received intact and Circle Applicable: Seals broken Damaged container Leaking container Other (describe) Chain of custody documents included Circle Applicable: Client contacted and provided COC COC created upon receipt with shipment? Preservation Method: Wet Ice Ice Packs - Dry ice None Other. Samples requiring cold preservation *all temperatures are recorded in Celsius within $(0 \le 6 \text{ deg. C})$?* Temperature Device Serial #: 124 - 21 Daily check performed and passed on IR 4 temperature gun? Secondary Temperature Device Serial # (If Applicable): Circle Applicable: Scals broken Damaged container Leaking container Other (describe) Sample containers intact and sealed? Samples requiring chemical preservation Sample ID's and Containers Affected: 6 at proper pH? If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes___No___NA__(If yes, take to VOA Freezer) Do liquid VCA vials contain acid preservation? Yes___No___NA__(If unknown, select No) Do any samples require Volatile Are liquid VOA vials free of headspace? Yes___ No___ NA__ Analysis? Sample ID's and containers affected: ID's and tests affected: Samples received within holding time? Sample ID's on COC match ID's on ID's and containers affected: Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) Date & time on COC match date & time on bottles? Number of containers received match Circle Applicable: No container count on COC Other (describe) number indicated on COC? Are sample containers identifiable as GEL provided by use of GEL labels? COC form is properly signed in Circle Applicable: Not relinquished Other (describe) relinquished/received sections? Comments (Use Continuation Form if needed): PM (or PMA) review: Initials Date 1014

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 26 October 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	SC000122021–36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
asimigion	2.00











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

November 10, 2021

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

Re: ABS Lab Analytical Work Order: 560632

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 29, 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,

Grace Bodiford

Grace Bodiford for Julie Robinson Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 560632 GEL Work Order: 560632

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.

Grace	Bodiford
-------	----------

Reviewed by

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

Certificate of Analysis

Report Date: November 10, 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: AF18534 Sample ID: 560632001 Matrix: Ground Water Collect Date: 26-OCT-21 10:00 Receive Date: 29-OCT-21

Client

Project: Client ID: SOOP001

SOOP00119

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid ".	As Received"									
Radium-228		1.61	+/-1.03	1.56	3.00	pCi/L		JXC9 11/04/21	1624 2192055	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		5.56	+/-1.31			pCi/L		NXL1 11/10/21	1414 2192059	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"								
Radium-226		3.94	+/-0.813	0.454	1.00	pCi/L		LXP1 11/05/21	0950 2191975	3
The following Analytical Methods were performed:										
Method	Description					I	Analys	st Comments		

			1 11101) 50 00	/	
1	EPA 904.0/SW846 9320 Modified		-		
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recov	ery Test	Result	Nominal	Recovery%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 81.5 (15%-125%)

Notes:

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

Column headers are defined as follows:

Collector:

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

Page 3 of 16 SDG: 560632

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

Certificate of Analysis

Report Date: November 10, 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: AF18535
Sample ID: 560632002
Matrix: Ground Water
Collect Date: 26-OCT-21 10:05
Receive Date: 29-OCT-21

Client

Project: SOOP00119 Client ID: SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting	,								
GFPC, Ra228, Liquid "	As Received"									
Radium-228		3.92	+/-1.79	2.68	3.00	pCi/L		JXC9 11/04/21	1624 2192055	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		8.42	+/-2.01			pCi/L		NXL1 11/10/21	1414 2192059	2
Rad Radium-226										
Lucas Cell, Ra226, Liq	uid "As Recei	ved"								
Radium-226		4.50	+/-0.902	0.492	1.00	pCi/L		LXP1 11/05/21	0950 2191975	3
The following Analytic	The following Analytical Methods were performed:									
Method	Description					I	Analy	st Comments		

MethodDescription1EPA 904.0/SW846 9320 Modified

2 Calculation
3 EPA 903.1 Modified

Collector:

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

70.7 (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

Page 4 of 16 SDG: 560632

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

Certificate of Analysis

Report Date: November 10, 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: AF18536
Sample ID: 560632003
Matrix: Ground Water
Collect Date: 26-OCT-21 11:55
Receive Date: 29-OCT-21

Client

Client ID: SOOP001

SOOP00119

Project:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid ".	As Received"									
Radium-228		2.39	+/-1.30	1.99	3.00	pCi/L		JXC9 11/04/2	1624 2192055	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		7.07	+/-1.63			pCi/L		NXL1 11/10/2	1414 2192059	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"								
Radium-226		4.68	+/-0.981	0.687	1.00	pCi/L		LXP1 11/05/2	0950 2191975	3
The following Analytic	al Methods w	ere perfo	ormed:							

Method	Description	Analyst Comments
1	EPA 904.0/SW846 9320 Modified	•

2 Calculation 3 EPA 903.1 Modified

Collector:

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

Page 5 of 16 SDG: 560632

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

Certificate of Analysis

Project:

Client ID:

Report Date: November 10, 2021

SOOP00119

SOOP001

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: AF18537 Sample ID: 560632004 Matrix: Ground Water Collect Date: 26-OCT-21 12:54 Receive Date: 29-OCT-21

Client Collector:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proporti	ional Counting	Ţ,								
GFPC, Ra228, Liquid	"As Received"	1								
Radium-228		3.94	+/-1.37	1.74	3.00	pCi/L		JXC9 11/04/21	1624 2192055	1
Radium-226+Radium-										
Radium-226+228 Sum		6.48	+/-1.53			pCi/L		NXL1 11/10/21	1414 2192059	2
Rad Radium-226										
Lucas Cell, Ra226, Lic	uid "As Recei	ved"								
Radium-226	-	2.54	+/-0.692	0.531	1.00	pCi/L		LXP1 11/08/21	0912 2191975	3
The following Analyti	cal Methods v	vere perfo	ormed:							
Method	Description					F	Analys	st Comments		

Method	Description	Analyst Comr
1	EPA 904.0/SW846 9320 Modified	•
_		

Calculation 2 EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Acceptable Limits Recovery% Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 69.2 (15%-125%)

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

Page 6 of 16 SDG: 560632

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

Certificate of Analysis

Project:

Client ID:

Analyst Comments

Report Date: November 10, 2021

SOOP00119

SOOP001

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Ms. Jeanette Gilmetti Contact: Project: ABS Lab Analytical

Client Sample ID: AF18539 Sample ID: 560632005 Matrix: Ground Water Collect Date: 27-OCT-21 10:27 Receive Date: 29-OCT-21

Client Collector:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid ".	As Received"									
Radium-228	U	0.619	+/-1.17	2.04	3.00	pCi/L		JXC9 11/04/21	1624 2192055	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		3.59	+/-1.39			pCi/L		NXL1 11/10/21	1414 2192059	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"								
Radium-226		2.97	+/-0.758	0.553	1.00	pCi/L		LXP1 11/05/21	1057 2191975	3
The following Analytic	al Methods w	ere perfo	ormed:							

The following	Anaiyucai	Methods	were	performed:

Description

1	EPA 904.0/SW846 9320 Modified				
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recov	ery Test	Result	Nominal	Recovery%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 78.1 (15%-125%)

Notes:

Method

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

Page 7 of 16 SDG: 560632

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

Certificate of Analysis

Report Date: November 10, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Client

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Client Sample ID: AF18540
Sample ID: 560632006
Matrix: Ground Water
Collect Date: 27-OCT-21 10:32
Receive Date: 29-OCT-21

Client ID: SOOP001

SOOP00119

Project:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting									
GFPC, Ra228, Liquid "A	As Received"									
Radium-228	U	0.903	+/-0.757	1.20	3.00	pCi/L		JXC9 11/04/21	1624 2192055	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		3.00	+/-0.975			pCi/L		NXL1 11/10/21	1414 2192059	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	id "As Recei	ved"								
Radium-226		2.09	+/-0.614	0.463	1.00	pCi/L		LXP1 11/05/21	1057 2191975	3
The following Analytic	al Methods w	ere perfo	ormed:							

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

3 EPA 903.1 Modified

Collector:

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

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 8 of 16 SDG: 560632

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

QC Summary

Report Date: November 10, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 560632

Parmname	NOM	Sample Qu	al QC	Units	RPD%	REC%	Range A	Anlst	Date Time
Rad Gas Flow Batch 2192055 ——									
QC1204945101 560632002 DUP Radium-228	Uncertainty	3.92 +/-1.79	2.53 +/-1.17	pCi/L	43.2		(0% - 100%)	JXC9	11/04/21 16:23
QC1204945102 LCS Radium-228	16.7 Uncertainty		15.3 +/-1.19	pCi/L		91.4	(75%-125%)		11/04/21 16:23
QC1204945103 LCSD Radium-228	16.7 Uncertainty		14.5 +/-1.07	pCi/L	5.35	86.7	(0%-20%)		11/04/21 16:23
QC1204945100 MB Radium-228	Uncertainty	U	0.185 +/-0.360	pCi/L					11/04/21 16:23
Rad Ra-226 Batch 2191975 ———									
QC1204944871 560632001 DUP Radium-226	Uncertainty	3.94 +/-0.813	4.42 +/-0.918	pCi/L	11.3		(0%-20%)	LXP1	11/05/21 10:57
QC1204944873 LCS Radium-226	26.8 Uncertainty		23.3 +/-1.87	pCi/L		87	(75%-125%)		11/08/21 09:12
QC1204944874 LCSD Radium-226	53.6 Uncertainty		53.4 +/-2.98	pCi/L	78.4*	99.6	(0%-20%)		11/05/21 10:57
QC1204944870 MB Radium-226	Uncertainty		0.726 +/-0.466	pCi/L					11/08/21 09:12
QC1204944872 560632001 MS Radium-226	134 Uncertainty	3.94 +/-0.813	135 +/-10.8	pCi/L		97.4	(75%-125%)		11/05/21 10:57

Notes:

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

The Qualifiers in this report are defined as follows:

Page 9 of 16 SDG: 560632

Page 1 of 2

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

QC Summary

560632 Page 2 of 2 Parmname **NOM** Sample Qual OC Units RPD% REC% Range Anlst Date Time

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

Workorder:

- Η Analytical holding time was exceeded
- J See case narrative for an explanation
- 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.
- Μ M if above MDC and less than LLD
- Μ 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
- Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier NJ
- One or more quality control criteria have not been met. Refer to the applicable narrative or DER. Q
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- Gamma Spectroscopy--Uncertain identification UI
- 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.
- ٨ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- Preparation or preservation holding time was exceeded h

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.

Page 10 of 16 SDG: 560632

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 560632

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 44

Analytical Batch: 2192059

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

GEL Sample ID#	Client Sample Identification
560632001	AF18534
560632002	AF18535
560632003	AF18536
560632004	AF18537
560632005	AF18539
560632006	AF18540

Data Summary:

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

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2192055

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

GEL Sample ID#	Client Sample Identification
560632001	AF18534
560632002	AF18535
560632003	AF18536
560632004	AF18537
560632005	AF18539
560632006	AF18540
1204945100	Method Blank (MB)
1204945101	560632002(AF18535) Sample Duplicate (DUP)
1204945102	Laboratory Control Sample (LCS)
1204945103	Laboratory Control Sample Duplicate (LCSD)

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

Page 11 of 16 SDG: 560632

Data Summary:

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

Preparation Information

Homogenous Matrix

Samples 560632005 (AF18539) and 560632006 (AF18540) were non-homogenous matrix. Samples have a yellow tint 560632005 (AF18539) and 560632006 (AF18540).

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

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

Analytical Batch: 2191975

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

GEL Sample ID#	Client Sample Identification
560632001	AF18534
560632002	AF18535
560632003	AF18536
560632004	AF18537
560632005	AF18539
560632006	AF18540
1204944870	Method Blank (MB)
1204944871	560632001(AF18534) Sample Duplicate (DUP)
1204944872	560632001(AF18534) Matrix Spike (MS)
1204944873	Laboratory Control Sample (LCS)
1204944874	Laboratory Control Sample Duplicate (LCSD)

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

Data Summary:

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

Preparation Information

Homogenous Matrix

Samples 560632005 (AF18539) and 560632006 (AF18540) were non-homogenous matrix.

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
--	----------------

Page 12 of 16 SDG: 560632

1204944870 (MB)	Radium-226	Result: 0.726	nCi/L > MDA · (0.654 pCi/L <	- RDI · 1 00 ı	nCi/I
1207777070 (MID)	Naurum-220	1003u1t. 0.720	PCI/L > MDA.	0.05+ pc1/L <	- KDL. 1.00	

Duplication Criteria between LCS and LCSD

The relative percent difference does not apply as the laboratory control sample and laboratory control sample duplicate, (See Below), are not true duplicates of each other as 0.1 mL of spike was added to the laboratory control sample and 0.2 mL was added to the laboratory control sample duplicate. They both meet the spiked recovery requirement.

Sample	Analyte	Value
1204944873 (LCS) and 1204944874 (LCSD)	Radium-226	RPD 78.4* (0%-20%)

Technical Information

Recounts

Samples 1204944870 (MB), 1204944873 (LCS) and 560632004 (AF18537) were degassed and recounted to verify sample results. The second counts are reported.

Miscellaneous Information

Additional Comments

The matrix spike, 1204944872 (AF18534MS), 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.

Page 13 of 16 SDG: 560632

Chain of Custody

560632



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

Customer Email/Report Recipient:			D	ate l	Results N	leeded	by:	Project/Task/Unit #:						Rerun request for any flagged C				Q		
LCWILLIA @santeecooper.com								121567 / JM02.09. GØI / 3650						Yes	No					
																sobusers = Device-Boses	£	Analysi	s Grou	Б
Labworks (Internal us only)		T-15-20 (1995) 1885 1885 1885	le Locatio iption)n/	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)	Comme Method # Reporting limit Misc. sample inf Any other notes		RAD: 226	RAD 228	TOTAL RADGALC.	
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AF1858	34	CGY	P-4		10/2	26/2	1 1000	DEW	2	ゃ	G	GW	2				X	X	Х	
AF185	35	CGY	'P-4	DUP			1005		\perp				\perp			non-theoretical and the second and t				
AF 85	36	CGY	P-5				1155	-					\coprod							
AF1853	37	CGY	'P-6			<u> </u>	1254	11					<u> </u>							
AF1853	39	WLF	- A2-6	>	19/2	27/21	1 1027		\coprod			Ш.	1				<u> </u>			
AF1854	10	WLF	-A2-6	. DUP		<u> </u>	1032	<u> </u>	11	1	<u> </u>	11	1			Addition to consider a second	L	1		
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#19wwn Relinquish			5594	10/29/21	100	2	1	ived by:		GEL		19/29/ Date		1000 Time	Correct	H: Yes No				
Reiinquisi	nea by:		nployee#	Date	1111	1 e	/ Rece	/ Dy:		mployee					Preserva	tive Lot#:				
Relinquisl	hed by:		nployee#	103631 Date	14/4	7	Rece	ived by:		プロー mployee		0/19/ Date		JUSS Time						
															Date/Tim	e/Init for preserv	ative:			
		TAL	S (all)	Not	rien	re l	M	ISC.		G۱	/pswi	13	T	Co	al	Flyash		O		
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□ B		-	□ Sr		/TPO4 13-N		□voc			' I A	IM			□ Ash □ Sulfu		% Carbon Mineral		adit		
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□ Co	□Ni		□ Hg	_			□ PCB			() Pa	njele Si			l Particulate	Matter	As TSS		1112		
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																0.00				



GEL Laboratories LLC SAMPLE RECEIPT & REVIEW FORM Client: SDG/AR/COC/Work Order: 5 lenle32 Received By: DC FedEx Express FedEx Ground UPS Field Services Courier Date Received: Cooler-210 Cooler3-00 Cooler2-700 Carrier and Tracking Number Suspected Hazard Information Yes å *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Hazard Class Shipped: IIN# A)Shipped as a DOT Hazardous? If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___No_ B) Did the client designate the samples are to be COC notation or radioactive stickers on containers equal client designation. received as radioactive? Maximum Net Counts Observed* (Observed Counts - Area Background Counts): C) Did the RSO classify the samples as CPM/mR/Hr Classified as: Rad 1 Rad 2 Rad 3 radioactive? COC notation or hazard labels on containers equal client designation. D) Did the client designate samples are hazardous? If D or E is yes, select Hazards below. PCB's Flammable E) Did the RSO identify possible hazards? Foreign Soil Asbestos Beryllium Sample Receipt Criteria Yes NA No Comments/Qualifiers (Required for Non-Conforming Items) Shipping containers received intact and Circle Applicable: Seals broken Damaged container Leaking container Other (describe) Chain of custody documents included Circle Applicable: Client contacted and provided COC COC created upon receipt with shipment? Preservation Method: Wet Ice Ice Packs Dry ice Samples requiring cold preservation None *all temperatures are recorded in Celsius within $(0 \le 6 \text{ deg. C})$?* Daily check performed and passed on IR Temperature Device Serial #: JR6-21 temperature gun? Secondary Temperature Device Serial # (If Applicable): Circle Applicable: Seals broken Damaged container Leaking container Other (describe) Sample containers intact and sealed? Samples requiring chemical preservation Sample ID's and Containers Affected: at proper pH? If Prescryation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes No NA (If yes, take to VOA Freezer)

Dolliquid VOA vials contain acid preservation? Yes No NA (If unknown, select No) Do any samples require Volatile 7 Are liquid VOA vials free of headspace? Yes___ No__ NA_ Analysis? Sample ID's and containers affected: ID's and tests affected: Samples received within holding time? Sample ID's on COC match ID's on ID's and containers affected: 9 bottles? Date & time on COC match date & time Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) 10 on bottles? Number of containers received match Circle Applicable: No container count on COC Other (describe) number indicated on COC? Are sample containers identifiable as GEL provided by use of GEL labels? COC form is properly signed in Circle Applicable: Not relinquished Other (describe) relinquished/received sections? Comments (Use Continuation Form if needed): PM (or PMA) review: Initials

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 10 November 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	SC000122021–36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
asimgion	2.00











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

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December 28, 2021

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

Re: ABS Lab Analytical Work Order: 562782

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on November 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 Project Manager

Purchase Order: 367074

Enclosures



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Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 562782 GEL Work Order: 562782

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.

	Julie	Robinson		
Reviewed by				

Page 2 of 15 SDG: 562782

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

Certificate of Analysis

Project:

Client ID:

Analyst Comments

Report Date: December 28, 2021

SOOP00119

SOOP001

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: AF20415 Sample ID: 562782001 Matrix: Ground Water Collect Date: 17-NOV-21 10:18 19-NOV-21

Client Collector:

Receive Date:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid ".	As Received"									
Radium-228		3.72	+/-1.63	2.41	3.00	pCi/L		JXC9 12/27/2	1 1129 2211287	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"							
Radium-226+228 Sum		4.90	+/-1.70			pCi/L		NXL1 12/28/2	1 1150 2202339	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"								
Radium-226		1.18	+/-0.496	0.543	1.00	pCi/L		LXP1 12/03/2	1 0916 2201682	3
The following Analytic	al Methods w	ere perfo	ormed:							

Description

1	EPA 904.0/SW846 9320 Modified				
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recov	ery Test	Result	Nominal	Recovery%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 84.4 (15%-125%)

Notes:

Method

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

Page 3 of 15 SDG: 562782

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

Certificate of Analysis

Project:

Client ID:

Report Date: December 28, 2021

SOOP00119

SOOP001

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: AF20416
Sample ID: 562782002
Matrix: Ground Water
Collect Date: 17-NOV-21 10:23
Receive Date: 19-NOV-21

Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	nal Counting									
GFPC, Ra228, Liquid "A	As Received"									
Radium-228	U	0.764	+/-0.837	1.39	3.00	pCi/L		JXC9 12/27/2	1129 2211287	1
Radium-226+Radium-22	28 Calculation	n "See Pa	arent Products"							
Radium-226+228 Sum		2.56	+/-1.02			pCi/L		NXL1 12/28/2	1150 2202339	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	id "As Recei	ved"								
Radium-226		1.80	+/-0.581	0.536	1.00	pCi/L		LXP1 12/03/2	0916 2201682	3
The following Analytica	al Methods w	ere perfo	ormed:							

Method	Description	Analyst	Comments
1	EPA 904 0/SW846 9320 Modified		

2 Calculation

2 Calculation
3 EPA 903.1 Modified

Collector:

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

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 4 of 15 SDG: 562782

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Certificate of Analysis

Report Date: December 28, 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: AF20417
Sample ID: 562782003
Matrix: Ground Water
Collect Date: 17-NOV-21 11:51
Receive Date: 19-NOV-21

Client

Project: SOOP00119 Client ID: SOOP001

Analyst Comments

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid ".	As Received"									
Radium-228	U	0.281	+/-1.00	1.84	3.00	pCi/L		JXC9 12/27/21	1129 2211287	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		1.59	+/-1.12			pCi/L		NXL1 12/28/21	1150 2202339	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"								
Radium-226		1.31	+/-0.507	0.432	1.00	pCi/L		LXP1 12/03/21	0916 2201682	3
The following Analytic	al Methods w	ere perfo	rmed:							

Method	Description	
1	EPA 904.0/SW846 9320 Modified	
2	Calculation	

2 Calculation
3 EPA 903.1 Modified

Collector:

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

68.5 (15%-125%)

Notes:

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

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 5 of 15 SDG: 562782

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

Certificate of Analysis

Report Date: December 28, 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: AF20418 Sample ID: 562782004 Matrix: Ground Water Collect Date: 17-NOV-21 13:04 19-NOV-21 Receive Date:

Client

Project: SOOP00119 Client ID: SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method		
Rad Gas Flow Proportion	Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid "	As Received"											
Radium-228		5.88	+/-1.46	1.48	3.00	pCi/L		JXC9 12/27/21	1129 2211287	1		
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"									
Radium-226+228 Sum		9.69	+/-1.71			pCi/L		NXL1 12/28/21	1150 2202339	2		
Rad Radium-226												
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"										
Radium-226		3.82	+/-0.882	0.696	1.00	pCi/L		LXP1 12/03/21	0916 2201682	3		
The following Analytic	al Methods w	ere perfo	ormed:									
Method	Description					I	Analys	st Comments				

1	EPA 904.0/SW846 9320 Modified				
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recove	ery Test	Result	Nominal	Recovery%	Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 74.9 (15%-125%)

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

Column headers are defined as follows:

Collector:

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

Page 6 of 15 SDG: 562782

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

Certificate of Analysis

Report Date: December 28, 2021

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Ms. Jeanette Gilmetti Contact: Project: ABS Lab Analytical

Client Sample ID: AF20419 Sample ID: 562782005 Matrix: Ground Water Collect Date: 18-NOV-21 11:27 19-NOV-21 Receive Date:

Client

Project: Client ID: SOOP001

SOOP00119

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid "	As Received"									
Radium-228	U	1.25	+/-1.23	2.04	3.00	pCi/L		JXC9 12/27/21	1129 2211287	1
Radium-226+Radium-2	28 Calculatio	n "See Pa	arent Products"							
Radium-226+228 Sum		2.39	+/-1.32			pCi/L		NXL1 12/28/21	1150 2202339	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"								
Radium-226		1.14	+/-0.477	0.469	1.00	pCi/L		LXP1 12/03/21	0916 2201682	3
The following Analytic	al Methods w	ere perfo	ormed:							
Method	Description					F	Analys	st Comments		

Surrogate/Tracer Recove	ery Test	Result	Nominal	Recovery%	Acceptable Limits
3	EPA 903.1 Modified				
2	Calculation				
1	EPA 904.0/SW846 9320 Modified				

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 80.6 (15%-125%)

Notes:

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

Column headers are defined as follows:

Collector:

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

Page 7 of 15 SDG: 562782

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

Certificate of Analysis

Project:

Client ID:

Report Date: December 28, 2021

SOOP00119

SOOP001

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: AF20420 Sample ID: 562782006 Matrix: Ground Water Collect Date: 18-NOV-21 11:32 Receive Date: 19-NOV-21

Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst D	ate	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228	U	0.743	+/-1.45	2.52	3.00	pCi/L		JXC9 12/2	7/21	1129 2211287	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		1.06	+/-1.52			pCi/L		NXL1 12/2	8/21	1150 2202339	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226	U	0.320	+/-0.444	0.768	1.00	pCi/L		LXP1 12/0	3/21	0948 2201682	3
The following Analytics	al Methods w	ere perfo	ormed:								

Method	Description	Analy	st Comments
1	EPA 904.0/SW846 9320 Modified	-	

2 Calculation EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Acceptable Limits Recovery%

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 79.6

(15%-125%)

Column headers are defined as follows:

Collector:

DF: Dilution Factor Lc/LC: Critical Level DL: Detection Limit PF: Prep Factor MDA: Minimum Detectable Activity **RL**: Reporting Limit

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

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 8 of 15 SDG: 562782

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

QC Summary

Report Date: December 28, 2021

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact: Ms. Jeanette Gilmetti

Workorder: 562782

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range A	Anlst	Date Time
Rad Gas Flow Batch 2211287 —									
QC1204985029 562782001 DUI Radium-228	Uncertainty	3.72 +/-1.63	2.81 +/-1.54	pCi/L	27.9		(0% - 100%)	JXC9	12/27/21 11:28
QC1204985030 LCS Radium-228	48.7 Uncertainty		39.2 +/-3.69	pCi/L		80.5	(75%-125%)		12/27/21 11:28
QC1204985028 MB Radium-228	Uncertainty	U	0.293 +/-1.40	pCi/L					12/27/21 11:28
Rad Ra-226 Batch 2201682 —									
QC1204966189 562782001 DUI Radium-226	Uncertainty	1.18 +/-0.496	1.84 +/-0.537	pCi/L	44*		(0%-20%)	LXP1	12/03/21 09:48
QC1204966191 LCS Radium-226	26.6 Uncertainty		27.1 +/-2.11	pCi/L		102	(75%-125%)		12/03/21 09:48
QC1204966192 LCSD Radium-226	26.6 Uncertainty		28.6 +/-2.19	pCi/L	5.24	108	(0%-20%)		12/03/21 09:48
QC1204966188 MB Radium-226	Uncertainty	U	0.237 +/-0.219	pCi/L					12/03/21 11:37
QC1204966190 562782001 MS Radium-226	134 Uncertainty	1.18 +/-0.496	127 +/-10.5	pCi/L		93.6	(75%-125%)		12/03/21 09:48

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

Page 9 of 15 SDG: 562782

Page 1 of 2

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

QC Summary

Page 2 of 2

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

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

> Result is greater than value reported

562782

- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

Workorder:

- 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.

Page 10 of 15 SDG: 562782

Radiochemistry Technical Case Narrative Santee Cooper SDG #: 562782

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2211287

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

GEL Sample ID#	Client Sample Identification
562782001	AF20415
562782002	AF20416
562782003	AF20417
562782004	AF20418
562782005	AF20419
562782006	AF20420
1204985028	Method Blank (MB)
1204985029	562782001(AF20415) Sample Duplicate (DUP)
1204985030	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

Sample Re-prep/Re-analysis

Samples were reprepped due to high blank activity. The re-analysis is being reported.

Miscellaneous Information

Additional Comments

Samples 562782005 (AF20419) and 562782006 (AF20420) are a yellow tint, but are homogenous.

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

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

Analytical Batch: 2201682

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

GEL Sample ID# Client Sample Identification

Page 11 of 15 SDG: 562782

562782001	AF20415
562782002	AF20416
562782003	AF20417
562782004	AF20418
562782005	AF20419
562782006	AF20420
1204966188	Method Blank (MB)
1204966189	562782001(AF20415) Sample Duplicate (DUP)
1204966190	562782001(AF20415) Matrix Spike (MS)
1204966191	Laboratory Control Sample (LCS)
1204966192	Laboratory Control Sample Duplicate (LCSD)

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

Data Summary:

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

Quality Control (QC) Information

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
1204966189 (AF20415DUP)	Radium-226	RPD 44* (0.00%-20.00%) RER 1.54 (0-3)

Certification Statement

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

Page 12 of 15 SDG: 562782

Chain of Custody

562782



Customer Email/Report Recipient:		Date	Date Results Needed by:					Project/Task/Unit #: R						Rerun request for any flagged Q			
LCWILLIA	@sant	eecooper.con	n	<i>J</i>	/	-	1215	367		102.0	9-G\$		Yes	No			
Labworks ID#	Sample Loca	ation/	Pod iškiusiistos	a sasa as										,	Analys	is Grou	g
(Internal use only)	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)		Comment Method # Reporting limit Misc. sample info Any other notes	S	RAD 226	KAD 228	TOTAL-RAD CALC.	
¥F 20415	CGYP-4		11/17/21	1018	DEW	2	P	G		2	1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1 &	 	<u> </u>	
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elinquished by:	Employee#	Date /	Time	Received	by:		€ l loyee#	11/	[]/] Date		/// Time	Preservative L	ot#:				
	******										imie	Date/Time/Init					
	ALS (all)	Nutri	ents	MICC				1			The state of the s		ioi preservatii	e;			
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As □K	□ Sn	DOC	0.	Napthalene			anouara Gypsur	r H <i>(all</i>		□Uh	imate % Mois	. Amn	ronia	frans.			
- 0 Li	1000	TP/TI		THM/HAA VOC			below)				Ash	ture [1LO]	ahan l	Color	oistur.		Opposite Company
	□ Sr	DF	` D	Oil & Greas	e e		LAM			D	Sulfur	ii Mine		Auren	1.		
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d □ Na	□ Zn	SO4	□F	Rad 226			Sulfites DH			O XRF		NPI	DES	Metal	an or		
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GEL	Laboratories	LLC

JAR

<u></u>	- COOD				SAMPLE RECEIPT & REVIEW FORM	s type i
-	ient: SOOK			SI	OG/AR/COC/Work Order: 5 42782	
Re	ceived By: DC			D	ate Received: 11-19-21	
	Carrier and Tracking Number				FedEx Express FedEx Ground UPS Field Services Con	urier Other
Sus	spected Hazard Information	Yes	1		Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Grounds	up for further investigation.
A)5	Shipped as a DOT Hazardous?		X	+-	zard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? YesNo	
	Did the client designate the samples are to be eived as radioactive?)	CC	C notation or radioactive stickers on containers equal client designation.	
	Did the RSO classify the samples as oactive?			Ma	ximum Net Counts Observed* (Observed Counts - Area Background Counts):CP. Classified as: Rad 1	M/mR/Hr
D)]	Did the client designate samples are hazardous?		>	<u> </u>	C notation or hazard labels on containers equal client designation.	
E) I	Did the RSO identify possible hazards?	L			O or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:	
	Sample Receipt Criteria	Yes	Z	ž	Comments/Qualifiers (Required for Non-Conforming Iter	ns)
1	Shipping containers received intact and sealed?	6			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)	
2	Chain of custody documents included with shipment?	<u></u>			Circle Applicable: Client contacted and provided COC COC created upon receipt	
3	Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$?*	1			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius	TEMP:
4	Daily check performed and passed on IR temperature gun?	سيا			Temperature Device Serial #: IR6-21 Secondary Temperature Device Serial # (If Applicable):	
5	Sample containers intact and sealed?	L			efficie Applicable: Seals broken Damaged container Leaking container Other (describe)	
6	Samples requiring chemical preservation at proper pH?	し			Sample ID's and Containers Affected: If Preservation added, Lot#;	The second secon
7	Do any samples require Volatile Analysis?			L	If Yes, are Encores or Soil Kits present for solids? Yes No NA (If yes, take to Vo Do liquid VOA vials contain acid preservation? Yes No NA (If unknown, select Are liquid VOA vials free of headspace? Yes No NA Sample ID's and containers affected:	
8	Samples received within holding time?				1D's and tests affected:	
0	Sample ID's on COC match ID's on	<u>ا</u>			iD's and containers affected:	
10	bottles? Date & time on COC match date & time			-	Circle Applicable: No dates on containers No times on containers COC missing info Ot	her (describe)
11	on bottles? Number of containers received match				Circle Applicable: No container count on COC Other (describe)	
12	number indicated on COC? Are sample containers identifiable as					
12	GEL provided by use of GEL labels? COC form is properly signed in relinquished/received sections?	J			Circle Applicable: Not relinquished Other (describe)	
	nents (Use Continuation Form if needed):					
	PM (or PMA	L) revi	ew:	Initia	uls GTB Date 11/22/21 Page of	

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 28 December 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	SC000122021–36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
asimigion	2.00











PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

gel.com

January 05, 2022

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

Re: ABS Lab Analytical Work Order: 564713

Dear Ms. Gilmetti:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on December 10, 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,

Grace Bodiford

Grace Bodiford for Julie Robinson Project Manager

Purchase Order: 367074

Enclosures



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

Certificate of Analysis Report for

SOOP001 Santee Cooper

Client SDG: 564713 GEL Work Order: 564713

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.

Grace	Bodiford
-------	----------

Reviewed by

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

Certificate of Analysis

Report Date: January 5, 2022

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: AF21736
Sample ID: 564713001
Matrix: Ground Water
Collect Date: 06-DEC-21 09:54
Receive Date: 10-DEC-21

Client

Client ID: SOOP001

Analyst Comments

SOOP00119

Project:

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analy	st Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		2.86	+/-1.19	1.65	3.00	pCi/L		JXC9	01/05/22	1022 2207640	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		5.03	+/-1.29			pCi/L		1 NXL1	01/05/22	1203 2207658	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	iid "As Recei	ved"									
Radium-226		2.18	+/-0.501	0.335	1.00	pCi/L		LXP1	01/04/22	0757 2207637	3
The following Analytic	al Methods w	ere perfo	ormed:								

3 EPA	903.1 Modified				
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			87	(15%-125%)

Notes:

Method

2

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

Collector:

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

Description

Calculation

MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Page 3 of 16 SDG: 564713

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

Certificate of Analysis

Report Date: January 5, 2022

SOOP00119

SOOP001

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Client

Moncks Corner, South Carolina 29461

Contact: Ms. Jeanette Gilmetti Project: ABS Lab Analytical

Client Sample ID: AF21737
Sample ID: 564713002
Matrix: Ground Water
Collect Date: 06-DEC-21 09:59
Receive Date: 10-DEC-21

d Water

Project:

Client ID:

Analyst Comments

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportion	onal Counting										
GFPC, Ra228, Liquid "As Received"											
Radium-228		3.00	+/-1.26	1.78	3.00	pCi/L		JXC9	01/05/22	1022 2207640	1
Radium-226+Radium-228 Calculation "See Parent Products"											
Radium-226+228 Sum		3.30	+/-1.28			pCi/L		1 NXL1	01/05/22	1203 2207658	2
Rad Radium-226											
Lucas Cell, Ra226, Liq	uid "As Recei	ved"									
Radium-226		0.303	+/-0.206	0.232	1.00	pCi/L		LXP1	01/04/22	0830 2207637	3
The following Analytic	eal Mathode w	ara narfo	rmad.								

The following Analytical Methods were performed:

Description

Calculation

3 E	EPA 903.1 Modified				
Surrogate/Tracer Recovery	y Test	Result	Nominal	Recovery%	Acceptable Limits

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limit Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 88.4 (15%-125%)

Notes:

Method

2

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

EPA 904.0/SW846 9320 Modified

Column headers are defined as follows:

Collector:

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

Page 4 of 16 SDG: 564713

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

Certificate of Analysis

Project:

Client ID:

Report Date: January 5, 2022

SOOP00119

SOOP001

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: AF21738
Sample ID: 564713003
Matrix: Ground Water
Collect Date: 06-DEC-21 11:13
Receive Date: 10-DEC-21

10-DEC-21 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	2.46	+/-1.56	2.46	3.00	pCi/L		JXC9 01/05/22	1022 2207640	1			
Radium-226+Radium-228 Calculation "See Parent Products"													
Radium-226+228 Sum		2.92	+/-1.59			pCi/L		1 NXL1 01/05/22	1203 2207658	2			
Rad Radium-226													
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"											
Radium-226		0.468	+/-0.310	0.445	1.00	pCi/L		LXP1 01/04/22	0830 2207637	3			
The following Analytic	The following Analytical Methods were performed:												
Method	Description					1	Analys	st Comments					

1	EPA 904.0/SW846 9320 Modified		-		
2	Calculation				
3	EPA 903.1 Modified				
Surrogate/Tracer Recov	ery 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:

Collector:

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

Page 5 of 16 SDG: 564713

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Certificate of Analysis

Report Date: January 5, 2022

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: AF21739
Sample ID: 564713004
Matrix: Ground Water
Collect Date: 06-DEC-21 12:15
Receive Date: 10-DEC-21

Client

Project: SOOP00119 Client ID: SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Anal	yst Date	Time Batch	Method
Rad Gas Flow Proportio	nal Counting										
GFPC, Ra228, Liquid "A	As Received"										
Radium-228		2.88	+/-1.21	1.70	3.00	pCi/L		JXC9	01/05/22	1022 2207640	1
Radium-226+Radium-22	28 Calculation	n "See Pa	rent Products"								
Radium-226+228 Sum		5.62	+/-1.34			pCi/L		1 NXL1	01/05/22	1203 2207658	2
Rad Radium-226											
Lucas Cell, Ra226, Liqu	id "As Recei	ved"									
Radium-226		2.74	+/-0.558	0.309	1.00	pCi/L		LXP1	01/04/22	0830 2207637	3
The following Analytica	al Methods w	ere perfo	rmed:								
Method	Description					F	Analys	st Comment	s		

MethodDescription1EPA 904.0/SW846 9320 Modified2Calculation3EPA 903.1 Modified

Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits

Barium-133 Tracer GFPC, Ra228, Liquid "As Received"

91.1 (15%-125%)

Notes:

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

Column headers are defined as follows:

Collector:

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: January 5, 2022

Company: Santee Cooper Address: P.O. Box 2946101

OCO3

Moncks Corner, South Carolina 29461

Ms. Jeanette Gilmetti Contact: Project: ABS Lab Analytical

Client Sample ID: AF21740 Sample ID: 564713005 Matrix: Ground Water Collect Date: 07-DEC-21 10:36 Receive Date: 10-DEC-21

Client

Project: SOOP00119 Client ID: SOOP001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Date Time Batch Method	od
Rad Gas Flow Proportion	onal Counting								
GFPC, Ra228, Liquid ".	As Received"								
Radium-228	U	0.757	+/-0.750	1.23	3.00	pCi/L		JXC9 01/05/22 1022 2207640	l
Radium-226+Radium-228 Calculation "See Parent Products"									
Radium-226+228 Sum		1.18	+/-0.780			pCi/L		1 NXL1 01/05/22 1203 2207658	2
Rad Radium-226									
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"							
Radium-226		0.422	+/-0.212	0.190	1.00	pCi/L		LXP1 01/04/22 0830 2207637	3
The following Analytic	al Methods w	ere perfo	ormed:						
Method	d Description Analyst Comments								

1	EPA 904.0/SW846 9320 Modified								
2	Calculation								
3	EPA 903.1 Modified								
Surrogate/Tracer Recove	ery Test	Result	Nominal	Recovery%	Acceptable Limits				

Barium-133 Tracer GFPC, Ra228, Liquid "As Received" 91.9 (15%-125%)

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

Column headers are defined as follows:

Collector:

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

Project:

Client ID:

Report Date: January 5, 2022

SOOP00119

SOOP001

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: AF21741
Sample ID: 564713006
Matrix: Ground Water
Collect Date: 07-DEC-21 10:41
Receive Date: 10-DEC-21

Receive Date: 10-DEC-21 Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF Analyst Dat	e Time Batch	Method
Rad Gas Flow Proportion	onal Counting									
GFPC, Ra228, Liquid "As Received"										
Radium-228	U	0.233	+/-0.791	1.44	3.00	pCi/L		JXC9 01/05/	22 1023 2207640	1
Radium-226+Radium-228 Calculation "See Parent Products"										
Radium-226+228 Sum		0.643	+/-0.821			pCi/L		1 NXL1 01/05/	22 1203 2207658	2
Rad Radium-226										
Lucas Cell, Ra226, Liqu	uid "As Recei	ved"								
Radium-226		0.410	+/-0.216	0.231	1.00	pCi/L		LXP1 01/04/	22 0830 2207637	3
The following Analytical Methods were performed:										

Method	Description	Analyst Comments
	ED 1 00 1 0 (GITTO 1 5 0000 3 F 11 01 1	

EPA 904.0/SW846 9320 Modified
Calculation

3 EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			93.1	(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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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 5, 2022

Santee Cooper P.O. Box 2946101

OCO3

Moncks Corner, South Carolina

Contact:

Ms. Jeanette Gilmetti

Workorder: 564713

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 2207640 ———								
QC1204978137 564713004 DUP Radium-228	Uncertainty	2.88 +/-1.21	2.86 +/-1.05	pCi/L	0.762		(0% - 100%) JXC9	01/05/22 10:21
QC1204978138 LCS Radium-228	49.1 Uncertainty		50.3 +/-3.82	pCi/L		102	(75%-125%)	01/05/22 10:21
QC1204978136 MB Radium-228	Uncertainty	U	0.661 +/-0.773	pCi/L				01/05/22 10:21
Rad Ra-226 Batch 2207637 ———								
QC1204978129 564713006 DUP Radium-226	Uncertainty	0.410 U +/-0.216	0.273 +/-0.251	pCi/L	40.1		(0% - 100%) LXP1	01/04/22 08:30
QC1204978131 LCS Radium-226	26.5 Uncertainty		21.9 +/-1.67	pCi/L		82.8	(75%-125%)	01/04/22 09:12
QC1204978132 LCSD Radium-226	26.5 Uncertainty		25.4 +/-1.64	pCi/L	14.5	95.7	(0%-20%)	01/04/22 09:12
QC1204978128 MB Radium-226	Uncertainty	U	0.0271 +/-0.206	pCi/L				01/04/22 08:30
QC1204978130 564713006 MS Radium-226	133 Uncertainty	0.410 +/-0.216	108 +/-8.17	pCi/L		80.9	(75%-125%)	01/04/22 08:30

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

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Page 1 of 2

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

QC Summary

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

> Result is greater than value reported

564713

- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.

Workorder:

- 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.

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Radiochemistry Technical Case Narrative Santee Cooper SDG #: 564713

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 44

Analytical Batch: 2207658

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

GEL Sample ID#	Client Sample Identification
564713001	AF21736
564713002	AF21737
564713003	AF21738
564713004	AF21739
564713005	AF21740
564713006	AF21741

Data Summary:

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

Product: GFPC, Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified **Analytical Procedure:** GL-RAD-A-063 REV# 5

Analytical Batch: 2207640

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

GEL Sample ID#	Client Sample Identification
564713001	AF21736
564713002	AF21737
564713003	AF21738
564713004	AF21739
564713005	AF21740
564713006	AF21741
1204978136	Method Blank (MB)
1204978137	564713004(AF21739) Sample Duplicate (DUP)
1204978138	Laboratory Control Sample (LCS)

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

Page 11 of 16 SDG: 564713

Data Summary:

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

Preparation Information

Homogenous Matrix

Samples 564713005 (AF21740) and 564713006 (AF21741) were non-homogenous matrix. Samples have a yellow tint. 564713005 (AF21740) and 564713006 (AF21741).

<u>Product:</u> Lucas Cell, Ra226, Liquid <u>Analytical Method:</u> EPA 903.1 Modified

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

Analytical Batch: 2207637

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

GEL Sample ID#	Client Sample Identification
564713001	AF21736
564713002	AF21737
564713003	AF21738
564713004	AF21739
564713005	AF21740
564713006	AF21741
1204978128	Method Blank (MB)
1204978129	564713006(AF21741) Sample Duplicate (DUP)
1204978130	564713006(AF21741) Matrix Spike (MS)
1204978131	Laboratory Control Sample (LCS)
1204978132	Laboratory Control Sample Duplicate (LCSD)

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

Data Summary:

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

Preparation Information

Homogenous Matrix

Samples 1204978129 (AF21741DUP), 1204978130 (AF21741MS), 564713005 (AF21740) and 564713006 (AF21741) were non-homogenous matrix.

Miscellaneous Information

Additional Comments

The matrix spike, 1204978130 (AF21741MS), aliquot was reduced to conserve sample volume.

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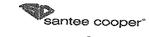
Certification Statement

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

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Chain of Custody

564713



Santee Cooper One Riverwood Drive Moneks Comer, SC 29461 Phone: (843)761-8000 Ext. 5148 Fax: (843)761-4175

LCW						eeded l			•	Ojeci	/ rask/	Unit #:		Rerun reques	it for a	ny fla	agged	J QC
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Labwor	lea ID. 46	T 4 25 10 4 20 4 20 800												Table 2000 a colone and comments	4	Analys	is Grou	1D
(Interna only)	137.4	Sample Locat Description	tion/	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	• V	Commer Method # Reporting limit Misc. sample info Any other notes		KAD 226	PALD 228	TOTAL RAD CALC	
AF217	136	CGYP-4		12/6/21	0954	DEW	2.	P	G	G:W	2				1 _×	×	×	
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	□ Mora	ΓALS (all)											Date/Time/I	nit for preserva	ive:			
] Ag	□ Cu	□ Sb	— Nutri		MISC	` <u>*</u>		Gyp	<u>sum</u>			Coal	F	lyash		OH		
Al	□ Fe	□Se	TOC		BTEX Napthalene		(i) V	vallboar Gynsu			015000000000000000000000000000000000000	timate	I D Ai	umonia	Trans		Dai.	
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Cr	□Рв	□ CrVI						la Particle ultur	Size		U Part	iculate Ma	uter DAS		OOH.	ı,		

Laboratories LLC SAMPLE RECEIPT & REVIEW FORM SDG/AR/COC/Work Order: 564713 Received By: M&S Date Received: 17.10.2 Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other Carrier and Tracking Number Suspected Hazard Information Yes *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Hazard Class Shipped: UN#: A)Shipped as a DOT Hazardous? If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No_ B) Did the client designate the samples are to be COC notation or radioactive stickers on containers equal client designation. received as radioactive? C) Did the RSO classify the samples as Maximum Net Counts Observed* (Observed Counts - Area Background Counts): _ radioactive? Classified as: Rad 1 Rad 2 Rad 3 DEPM/mR/Hr COC notation or hazard labels on containers equal client designation. D) Did the client designate samples are hazardous? If D or E is yes, select Hazards below. E) Did the RSO identify possible hazards? PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: Sample Receipt Criteria NA NA Comments/Qualifiers (Required for Non-Conforming Items) Shipping containers received intact and Circle Applicable: Seals broken Damaged container Leaking container Other (describe) sealed? Chain of custody documents included 2 Circle Applicable: Client contacted and provided COC with shipment? COC created upon receipt Preservation Method: Wet Ice Ice Packs Dry ice (None) Other: Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$?* *all temperatures are recorded in Celsius Daily check performed and passed on IR 4 Temperature Device Serial #:エレス-21 temperature gun? Secondary Temperature Device Serial # (If Applicable): Circle Applicable: Scals broken Damaged container Leaking container Other (describe) Sample containers intact and sealed? Samples requiring chemical preservation Sample ID's and Containers Affected: 6 at proper pH? If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes___No___ NA___(If yes, take to VOA Freezer) Do any samples require Volatile Do liquid VOA vials contain acid preservation? Yes No NA (If unknown, select No) 7 Are liquid VOA vials free of headspace? Yes____No___NA Analysis? Sample ID's and containers affected: Samples received within holding time? ID's and tests affected: Sample ID's on COC match ID's on ID's and containers affected: bottles? Date & time on COC match date & time Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) on bottles? LOC Says 2020 Soil containers Number of containers received match Circle Applicable. No container count on COC number indicated on COC? Are sample containers identifiable as GEL provided by use of GEL labels? COC form is properly signed in Circle Applicable: Not relinquished Other (describe) relinquished/received sections? Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials

and hear

List of current GEL Certifications as of 05 January 2022

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	SC000122021–36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
T, admington	2700

Field Data Sheets

(Note: the color coding is to assist field personnel in determining when the well has stabilized enough to begin sample collection.)

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
PM-1	83.24	8.27	4-24	1/26/2021	927	26.31

Drawdown: 8.82 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
907	19.45	5.07	57	146	0	7.86
912	19.37	4.86	30	143	11.8	6.69
917	19.43	4.92	18	142	13.3	6.44
922	19.51	4.95	8	142	2.6	6.16
927	19.47	5.03	1	143	4.4	6.12

Comments/Conditions:

Samples were collected by Aaron Hill and Trey West

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
PM-1	83.24	7.91	4-24	6/21/2021	1308	26.33

Drawdown: 8.34 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1240	25.76	4.9	63	183	14.6	3.07
1245	26.43	4.87	67	184	14.4	5.7
1250	26.24	5.29	40	182	10.5	5.17
1255	26.41	5.21	43	178	6.4	4.65
1300	26.34	5.23	41	172	4.5	4.32
1305	26.47	5.17	45	170	5.2	4.09
1308	26.49	5.21	45	169	4.3	3.96

Comments/Conditions:

Samples were collected by Melanie Goings and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CBW-1	85.80	10.12	14-24	1/26/2021	1039	26.94

Drawdown: 10.15 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1005	20.71	4.33	160	187	3.2	2.82
1010	20.31	4.27	221	187	0.6	1.48
1015	20.2	4.2	268	191	0	1.15
1020	20.25	4.22	288	191	0	1.05
1025	20.3	4.29	303	192	0	0.84
1030	20.32	4.29	318	192	0	0.78
1033	20.34	4.29	326	192	0	0.76
1036	20.31	4.28	334	192	0	0.74
1039	20.25	4.31	338	192	0	0.71
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	_					
	_	_				

Comments/Conditions:

Samples were collected by Aaron Hill and Trey West

Well ID	TOC	GW	Depth of	Sample	Sample	Total
	Elevation	Depth	Screened	Date	Time	Well
	(feet)	(feet)	Interval (ft, bgs)			Depth
CBW-1	85.80	10.07	14-24	6/21/2021	1413	26.76

Drawdown: 10.11 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1345	26.18	4.24	96	167	0	1.66
1350	25.53	4.18	98	182	0	0.92
1355	24.62	3.9	104	187	0	0.78
1400	24.48	3.94	98	190	0	0.73
1405	23.9	4.28	76	193	0	0.7
1410	23.89	4.27	74	194	0.4	0.67
1413	24.16	4.25	75	194	0.2	0.66

Comments/Conditions:

Samples were collected by Melanie Goings and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-1	91.89	15.99	14'-24'	2/10/2021	1116	27

Drawdown: 16.22 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1033	19.84	4.88	139	2060	37.1	2.36
1038	19.96	4.89	141	2080	28.6	2.79
1043	18.67	4.92	137	2240	30.6	2.74
1048	19.1	4.53	144	2680	1.9	1.09
1053	19.45	4.34	155	2910	0	0.78
1058	19.83	3.77	193	3370	0	0.66
1101	19.62	3.74	207	3400	0	0.64
1104	19.7	3.74	216	3410	0	0.62
1107	19.64	3.76	224	3410	0	0.62
1110	19.74	3.77	231	3400	0	0.61
1113	19.81	3.78	235	3410	0	0.6
1116	19.81	3.8	235	3410	0	0.6

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-1	91.89	16.58	14'-24'	4/7/2021	1216	26.98

Drawdown: 16.81 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1	,	Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1145		4.37	205	2540	0	1.17
1150	23.18	4.22	213	2850	0	0.65
1155	23.34	4.19	214	2910	0	0.52
1200	23.34	4.17	213	2920	0	0.45
1205	23.43	4.14	214	2960	0	0.42
1210	23.59	4.11	217	3150	0	0.39
1213	23.64	4.11	219	3180	0	0.38
1216	23.58	4.1	219	3200	0	0.37

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-1	91.89	17.75	14'-24'	7/7/2021	1031	27.44

Drawdown: 18.1 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1003	22.32	3.93	166	2730	4.1	3.69
1008	23.45	4	152	2680	3.2	1.27
1013	24.71	4.05	144	2680	4.1	1.12
1018	24.06	4.13	158	2700	6.2	1.07
1023	23.25	4.19	148	2650	1.6	0.84
1028	23.15	4.19	146	2660	0.5	0.79
1031	23.16	4.19	145	2670	0.6	0.77
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	_	_	_			

Comments/Conditions: Depth to water/GW Elevation Only

Samples were collected by Connor Smalling and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-2	84.88	8.41	8-18	2/10/2021	1223	22.49

Drawdown: 9.77 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1158	19.33	3.92	243	1700	0	1.17
1203	19.16	3.84	266	1700	0	0.22
1208	18.93	3.82	267	1710	0	0.56
1213	18.92	3.8	269	1710	0	0.5
1218	19.05	3.78	268	1710	0	0.46
1223	19.11	3.77	271	1710	0	0.43

Comments/Conditions: Duplicate was collected at 1228

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-2	84.88	9.39	8-18	4/7/2021	1316	21.5

Drawdown: 9.66 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1251	23.19	4.19	203	1570	0	1.8
1256	21.85	4.11	233	1640	0	0.56
1301	21.7	4.09	241	1640	0	0.45
1306	21.5	4.05	245	1650	0	0.4
1311	21.51	4.04	246	1650	0	0.38
1316	21.36	4.02	247	1650	0	0.38

Comments/Conditions: Duplicate was collected at 1321

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-2	83.95	10.6	8'-18'	7/7/2021	1128	21.78

Drawdown: 10.74 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1112	27.87	3.88	247	1470	14.5	1.04
1117	25.75	3.82	236	1520	0	0.71
1123	25.68	3.81	244	1500	0	0.69
1128	25.39	3.8	241	1530	0.2	0.67

Comments/Conditions:

Duplicate at 1133/Fix TOC Elevation

Samples were collected by Connor Smalling and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-3	83.95	6.38	10-20	2/10/2021	1338	23.15

Drawdown: 6.63 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1318	20.31	3.47	335	5540	0	0.95
1323	19.77	3.48	333	5620	0	0.68
1328	19.37	3.49	331	5660	0	0.59
1333	19.3	3.5	329	5690	0	0.54
1338	19.17	3.5	328	5700	0	0.51

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-3	83.95	8.27	10-20	4/7/2021	1420	23.14

Drawdown: 8.69 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1	-	Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1400	25.67	3.76	260	4980	0	1.07
1405	25.56	3.76	248	5150	0	0.45
1410	24.57	3.75	242	5210	0	0.36
1415	24.17	3.75	241	5190	0	0.34
1420	23.64	3.73	240	5280	0	0.32

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-3	83.95	9.29	10-20	7/7/2021	1338	

Drawdown: 9.53 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1310	25.75	3.83	165	4500	0.4	3.95
1315	25.81	3.68	187	3950	1.2	1.33
1320	25.53	3.62	217	3770	0	1.13
1325	25.28	3.6	223	3870	0.4	1.05
1330	24.99	3.58	225	3920	0	0.8
1335	24.87	3.57	225	4030	0.2	0.73
1338	24.83	3.56	225	4090	0.3	0.72

Comments/Conditions:

Samples were collected by Connor Smalling and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	7.56	10-20	4/7/2021	1106	23.01

Drawdown: 7.84 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1026	19.75	3.8	143	3140	28.5	2.75
1031	20.5	3.81	161	3130	16.8	1.53
1036	20.87	3.8	176	3100	10	1.19
1041	21.39	3.8	196	3060	5.4	0.9
1046	21.64	3.8	212	3050	3.4	0.84
1051	21.67	3.79	227	3070	2.2	0.79
1054	21.82	3.79	234	3060	0.5	0.7
1057	22.03	3.78	239	3060	0	0.63
1100	22.23	3.78	242	3060	0	0.55
1103	22.29	3.78	244	3060	0	0.55
1106	22.48	3.78	246	3050	0	0.54

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	7.65	10-20	5/13/2021	1439	23.04

Drawdown: 7.95 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1405	23.82	4.01	80	2830	0	1.44
1410	23.29	3.97	70	2870	0	0.85
1415	22.41	3.96	81	2920	0	0.68
1420	22.06	3.91	94	2960	0	0.75
1425	22.04	3.9	100	2970	0	0.72
1430	22.1	3.89	107	2990	0	0.68
1433	22.19	3.88	114	2990	0	0.66
1436	22.15	3.88	118	2990	0	0.65
1439	22.18	3.88	122	2990	0	0.64

Comments/Conditions:

Duplicate was collected at 1444

Samples were collected by Melanie Goings and Brad MCCray

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	7.69	10-20	7/8/2021	1026	23.01

Drawdown: 7.89 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
958	21.15	3.67	153	2940	3.1	1.86
1003	22.14	3.72	131	2920	3.3	0.82
1008	22.57	3.69	133	2920	1.5	0.71
1013	22.99	3.68	136	2910	0.4	1.03
1018	23.08	3.67	137	2910	0.5	1.16
1023	23.06	3.66	140	2930	0.6	1.05
1026	23.08	3.65	141	2940	0.6	1.01

Comments/Conditions:

Samples were collected by Melanie Goings and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	7.33	10-20	9/1/2021	904	23

Drawdown: 7.68 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
844	22.22	3.72	179	2880	10.1	3.16
849	23.35	3.67	183	2840	22.8	1.02
854	23.72	3.65	192	2850	10.8	0.96
859	23.88	3.65	196	2860	8.6	0.92
904	24.12	3.65	202	2860	3.6	0.87

Comments/Conditions:

DUP taken at 909

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	7.04	10-20	9/27/2021	938	23

Drawdown: 7.34 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
910	23	3.73	167	2830	11.1	1.86
915	23.56	3.77	172	2780	2.8	0.88
920	23.79	3.73	183	2780	0	0.72
925	23.99	3.69	195	2800	0	0.75
930	24.17	3.67	203	2800	0	0.71
935	24.39	3.66	210	2810	0	0.67
938	24.49	3.65	212	2800	0	0.65

Comments/Conditions:

DUP taken at 943

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	8.15	10-20	10/26/2021	1000	23

Drawdown: 8.4 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
923	22.12	3.63	241	2660	0	1.37
928	22.46	3.63	245	2670	0	0.73
933	22.68	3.63	248	2660	0	0.6
938	22.98	3.62	246	2670	0	0.52
943	23.22	3.63	244	2660	0	0.47
948	23.47	3.61	244	2660	0	0.52
951	23.56	3.63	242	2660	0	0.5
954	23.68	3.64	241	2660	0	0.44
957	23.82	3.66	239	2660	0	0.41
1000	23.95	3.66	238	2660	0	0.4

Comments/Conditions:

DUP taken at 1005

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	8.6	10-20	11/17/2021	1018	23

Drawdown: 8.86 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
941	20.4	3.09	439	2830	0	3.17
946	21.23	3.27	386	2730	10.8	1.21
951	21.81	3.36	340	2710	4.8	0.86
956	22.38	3.43	325	2660	9.2	0.68
1001	22.86	3.46	321	2640	0	0.6
1006	23.26	3.5	303	2630	0	0.54
1009	23.55	3.51	301	2610	0	0.51
1012	23.72	3.53	290	2600	0	0.5
1015	23.89	3.59	292	2590	0	0.48
1018	23.99	3.54	288	2590	0	0.47

Comments/Conditions:

DUP taken at 1023

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-4	83.49	8.8	10-20	12/6/2021	954	23

Drawdown: 9 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
929	21.9	3.32	304	2590	0.9	1.22
934	22.06	3.34	302	2590	5.9	1.01
939	22.32	3.34	298	2600	0.4	0.9
944	22.48	3.37	289	2600	0.5	0.87
949	22.55	3.4	285	2600	0.2	0.85
954	22.6	3.41	280	2600	0	0.86

Comments/Conditions:

DUP taken at 959

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	7.68	9-19	4/7/2021	1509	21.95

Drawdown: 8.62 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1449	21.47	5.45	182	1470	11.3	1.99
1454	21.95	5.46	173	1490	4.8	0.56
1459	22.41	5.43	172	1460	4.2	0.46
1504	22.19	5.4	171	1420	2.3	0.42
1509	22.32	5.36	172	1380	1.3	0.39

Comments/Conditions:

Samples were collected by Melanie Goings and Trey West

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	8.76	9-19	5/13/2021	1600	21.98

Drawdown: 8.92 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1535	23.59	5.55	148	1380	1.3	1.28
1540	22.91	5.54	143	1390	0	0.91
1545	22.11	5.48	143	1360	0	0.79
1550	22.05	5.4	146	1300	1.6	0.71
1555	21.89	5.35	149	1290	0	0.68
1600	21.86	5.32	151	1270	0	0.64

Comments/Conditions:

Samples were collected by Melanie Goings and Brad MCCray

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	7.59	9-19	7/8/2021	1124	21.98

Drawdown: 8.5 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1	~	Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1059	23.66	5.15	119	1340	5.4	1.61
1104	24.3	5.14	108	1340	18.9	0.64
1109	24.45	5.2	104	1350	13.4	0.56
1114	24.38	5.08	105	1300	2.8	0.49
1119	24.38	5.04	106	1280	0.2	0.47
1124	24.29	4.99	108	1260	0	0.46

Comments/Conditions:

Samples were collected by Melanie Goings and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	7.43	9-19	8/31/2021	1001	21.99

Drawdown: 9.12 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
935	25.14	5.17	113	1550	21	2.22
940	25.5	5.23	89	1560	23.3	0.85
945	25.55	5.24	89	1510	22.1	0.64
950	25.35	5.29	89	1460	6.3	0.54
955	25.37	5.18	90	1470	3.3	0.5
958	25.41	5.19	92	1450	2.5	0.48
1001	25.44	5.17	92	1420	1.2	0.45

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	7.79	9-19	9/27/2021	1117	21.98

Drawdown: 10.44 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1024	27.46	5.16	143	1340	2.1	2.07
1029	27.13	5.25	132	1480	8.3	1.26
1034	26.81	5.27	133	1520	3.4	0.85
1039	24.54	5.25	134	1510	1.1	0.65
1044	26.19	5.21	137	1490	1.7	0.5
1049	25.64	5.18	140	1490	0	1.19
1052	25.66	5.14	142	1480	0	2.01
1055	25.6	5.15	143	1490	0	1.96
1058	25.53	5.13	145	1480	0	2.49
1105	25.63	5.05	152	1500	0	1.16
1108	25.68	4.98	156	1500	0	0.68
1111	25.71	4.95	159	1500	0	0.55
1114	25.73	4.94	162	1500	0	0.51
1117	25.73	4.92	163	1500	0	0.5

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	8.13	9-19	10/26/2021	1155	21.98

Drawdown: 10.64 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1103	26.89	5.25	239	1470	0	4.61
1108	25.76	5.21	198	1500	0	3.4
1113	25.44	5.22	187	1530	0	1.34
1118	25.21	5.24	171	1560	0	0.92
1123	24.93	5.23	161	1580	0	0.56
1128	24.74	5.21	158	1570	0	0.45
1131	24.62	5.19	158	1560	0	0.41
1134	24.47	5.15	160	1560	0	0.51
1137	24.39	5.13	162	1550	0	0.51
1140	24.23	5.1	164	1560	0	0.63
1143	24.16	5.04	169	1550	0	1.21
1146	24.1	5	173	1540	0	0.43
1149	24.04	4.93	174	1540	0	0.38
1152	23.97	4.96	175	1540	0	0.36
1155	23.94	4.93	177	1540	0	0.36

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	8.59	9-19	11/17/2021	1151	21.98

Drawdown: 11.16 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1114	24.93	5.45	213	1530	0	3.83
1119	24.08	5.4	222	1530	0	2.9
1124	24.05	5.36	214	1520	0	2.65
1129	23.86	5.33	214	1510	0	2.38
1134	23.9	5.27	213	1510	0	2.17
1139	23.83	5.15	216	1510	0	1.96
1142	23.81	5.14	218	1510	0	1.86
1145	23.84	5.03	220	1510	0	1.75
1148	23.85	5	223	1510	0	1.64
1151	23.9	4.95	230	1510	0	1.53

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-5	84.12	8.65	9-19	12/6/2021	1113	21.98

Drawdown: 10.43 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1045	22.83	5.25	205	1600	15.5	3.71
1050	22.59	5.24	231	1620	10.2	2.19
1055	22.55	5.23	220	1610	8	1.67
1100	22.65	5.21	212	1600	7.4	1.41
1105	22.76	5.18	205	1580	5.5	0.93
1110	22.84	5.17	201	1570	8.5	0.95
1113	22.94	5.15	200	1560	6.2	0.98

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	7.6	9-19	4/7/2021	1602	22.35

Drawdown: 8 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1537	21.68	3.7	136	3730	0	1.59
1542	22.89	3.67	208	3830	0	0.6
1547	23.34	3.66	246	3780	0	0.45
1552	24.18	3.67	268	3690	0	0.37
1557	24.14	3.68	274	3670	0	0.35
1602	23.98	3.68	276	3700	0	0.33
		_	_			_
		_	_			_

Comments/Conditions:

Samples were collected by Melanie Goings and Trey West

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	7.99	9-19	5/13/2021	1655	22.35

Drawdown: 8.44 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1630	21.82	3.76	153	3660	0	1.41
1635	21.29	3.73	211	3700	0	0.72
1640	20.97	3.72	238	3700	0	0.57
1645	20.83	3.71	249	3700	0	0.51
1650	20.69	3.7	253	3700	0	0.49
1655	20.67	3.7	253	3710	0	0.47

Comments/Conditions:

Samples were collected by Melanie Goings and Brad McCray

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	8.2	9-19	7/8/2021	1221	22.35

Drawdown: 8.52 depth to GW (ft)

Time	Temp	pН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1150	25.08	4.75	90	2280	0	2.79
1155	25.2	3.54	130	3480	0	1.03
1200	25.24	3.53	148	3560	0	1.08
1205	25.27	3.53	154	3550	0	1.06
1210	25.35	3.53	176	3560	0	0.94
1215	25.47	3.53	194	3560	0	0.85
1218	25.5	3.54	198	3550	0	0.8
1221	25.56	3.54	202	3540	0	0.75

Comments/Conditions:

Samples were collected by Melanie Goings and Ben Taylor

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	7.57	9-19	8/31/2021	1102	22.34

Drawdown: 8.09 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1034	27.5	4.78	79	2200	0	1.24
1039	27.66	4.1	87	3190	0	0.56
1044	27.38	3.71	107	3450	0.3	0.42
1049	27.42	3.67	116	3480	3.1	0.37
1054	27.46	3.67	122	3470	3.6	0.34
1059	27.42	3.67	128	3460	3.7	0.33
1102	27.22	3.67	132	3460	4.2	0.33

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	7.8	9-19	9/27/2021	1232	22.34

Drawdown: 8.24 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1207	27.24	4.65	93	2270	0	0.86
1212	27.51	3.66	165	3490	0	0.89
1217	27.22	3.62	204	3580	0	0.79
1222	27.2	3.61	216	3570	0	0.71
1227	27.22	3.62	217	3550	0	0.67
1232	27.14	3.62	222	3520	0	0.62

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	8.65	9-19	10/26/2021	1254	22.33

Drawdown: 9.14 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1229	24.34	3.97	409	2310	0	1.99
1234	24.42	3.54	306	3160	0	0.86
1239	24.21	3.54	288	3540	0	0.45
1244	24.36	3.53	282	3650	0	0.39
1249	24.29	3.53	281	3670	0	0.36
1254	24.18	3.54	278	3670	0	0.34
	_				_	_

Comments/Conditions:

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	9.13	9-19	11/17/2021	1304	22.33

Drawdown: 9.6 depth to GW (ft)

Time	Temp	рН	Eh	Spec Cond	Turbidity	Dissolved
	round 1	round 1	ORP	round 1		Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1236	23.88	3.72	472	2410	0	3.81
1241	23.3	3.68	482	2440	0	2.47
1246	23.53	3.64	322	3110	0	0.83
1251	23.51	3.65	303	3150	0	0.63
1256	23.41	3.66	297	3170	0	0.58
1301	23.27	3.66	291	3170	0	0.54
1304	23.24	3.66	287	3170	0	0.53

Comments/Conditions: noticed the gasket came loose in the flow cell and was slightly leaking

Well ID	TOC	GW	Screen	Sample	Sample	Total
	Elevation	Depth	Intervals	Date	Time	Well
	(feet)	(feet)	(ft, bgs)			Depth
CGYP-6	83.23	9.38	9-19	12/6/2021	1215	22.33

Drawdown: 9.55 depth to GW (ft)

Time	Temp round 1	pH round 1	Eh ORP	Spec Cond round 1	Turbidity	Dissolved Oxygen
	(celcius)	(units)	(mV)	(uS/cm)	(NTU)	(ppm)
1200	23.51	3.32	458	2870	0.5	2.51
1205	23.85	3.36	453	2850	0	2.83
1210	24.02	3.39	455	2850	0.7	2.76
1215	24.15	3.46	455	2850	1.4	2.74

Comments/Conditions:





Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER			211 - C1 - CC1, C - C1 - C1 - C1 - C1 - C
1. WELL OWNER INFORMATION:		•	7. PERMIT NUMBER: SC0037401
Name: SANTEE COOPER	llier		36003/401
(last) Address: ONE RIVERWOOD DRIVE	(firs	51)	8. USE:
ONE RIVERWOOD DRIVE			Residential Public Supply Process
City: MONCKS CORNER State: SC	Zip: 29	9461	☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement
Telephone: Work:	Home:		9. WELL DEPTH (completed) Date Started: 03/01/21
2. LOCATION OF WELL: SC CO		CELEY	ft. Date Completed: 03/01/21
Name: CROSS GENERATING STA			10. CASING: Threaded Welded
Street Address: 553 CROSS STAT	TION ROAD)	Diam.: 2 INCH Height: Above Below ☐
City: PINEVILLE	^{Zip:} 29468		Type: PVC Galvanized Surface 2.5 ft. Steel Other Weight 16./ft.
Latitude: 33° 23' 10.94" Longitude	: 80° 06′ 56	.66"	2.0 in. to 10.0 ft. depth Drive Shoe? Yes No
3. PUBLIC SYSTEM NAME: PU	BLIC SYSTE	M NIIMBED:	11. SCREEN:
J. FODEIO STOTEM MAME.	CGYP-		Type: SCH.40 PVC Diam.; 2 INCH
4. ABANDONMENT: ☐ Yes ☑		•	Slot/Gauge:010 Length:10.0 FEET
			Set Between: 10.0 ft. and 20.0 ft. NOTE: MULTIPLE SCREENS ft. and ft. USE SECOND SHEET
Grouted Depth: fromf			Sieve Analysis Yes (please enclose) No
Formation Description	*Thickness of	Depth to Bottom of	12. STATIC WATER LEVEL 6.0 ft. below land surface after 24 hours
- Cition Decomption	Stratum	Stratum	13. PUMPING LEVEL Below Land Surface.
SANDY CLAY	20.0	20.0	ft. after hrs. Pumping G.P.M.
	20.0	20.0	Pumping Test: ☐ Yes (please enclose) ☐ No
			Yield:
			14. WATER QUALITY Chamieri Anglynia (17 Year (18)) Restocial Anglynia (17 Year (18))
			Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No Please enclose lab results.
			15. ARTIFICIAL FILTER (filter pack)
			Installed from 8.0 ft. to 20.0 ft.
			Effective size 1.43 Uniformity Coefficient 1.30
			16. WELL GROUTED? Z Yes No
			☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other Depth: From
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
			Type
			Well Disinfected ☐ Yes ☐ No Type: Amount:
			18. PUMP: Date installed: Not installed
			Mfr. Name: Model No.;
			H.P Volts Length of drop pipe ft. Capacity gpm
			TYPE: Submersible Jet (shallow) Turbine
			☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal
40			19. WELL DRILLER: JEREMY RINGLER CERT. No.: 02294
			Address: (Print) Level: A B C D (circle one)
			176 COMMERCE BLVD STATESVILLE, NC 28625
*Indicate Water Bearing Zones			Telephone No.: 704-872-7686 Fax No.: 704-872-0248
(Line a 2nd about if product)			20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed) 5. REMARKS:			my direction and this report is true to the best of my knowledge and belief.
BENTONITE SEAL 5.0 - 8.0 FEET			Signed: 03/05/21
			Signed Date
			Well Driller
6. TYPE: Mud Rotary Jetted	_	ored	If D Level Driller, provide supervising driller's name:
☐ Dug ☐ Air Rota☐ Cable tool ☐ Other A	-)riven	
- Capie tooi			



Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER			
1. WELL OWNER INFORMATION:			7. PERMIT NUMBER: SC0037401
Name: SANTEE COOPER (last)	(first	,	
Address: ONE RIVERWOOD DRIVE		,	8. USE:
			☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency
City: MONCKS CORNER State: SC	Zip: 29	461	☐ Test Well ☐ Monitor Well ☐ Replacement
Telephone: Work:	Home:		9. WELL DEPTH (completed) Date Started: 03/02/21
2. LOCATION OF WELL: SC CO	DUNTY: BERK	ELEY	
Name: CROSS GENERATING ST	ATION		10. CASING: ☑ Threaded ☑ Welded
Street Address: 553 CROSS STA			Diam.: 2 INCH Height: Above Below □
City: PINEVILLE	Zip: 29468		Type: PVC Galvanized Surface 2.5 ft. Steel Other Weight 6.75.
			2.0 in. to 9.0 ft. depth Drive Shoe? Yes No
Latitude: 33° 23' 10.94" Longitude	:: 80° 06' 56.	66"	in. toft. depth
3. PUBLIC SYSTEM NAME: PU	IBLIC SYSTEM	NUMBER:	11. SCREEN:
	CGYP-5	5	Type: SCH 40 PVC Diam.: 2 INCH Slot/Gauge: .010 Length: 10.0 FEET
4. ABANDONMENT: Yes	No		Set Between: 9.0 ft, and 19.0 ft. NOTE: MULTIPLE SCREENS
			t, andft. USE SECOND SHEET
Grouted Depth: fromt	ft. to		Sieve Analysis ☐ Yes (please enclose) ☐ No
Formation Description	*Thickness	Depth to	12. STATIC WATER LEVEL 6.0 ft. below land surface after 24 hours
Formation Description	of Stratum	Bottom of Stratum	13. PUMPING LEVEL Below Land Surface.
SAND	19.0	19.0	ft. after hrs. Pumping G.P.M.
SAND	19.0	19.0	Pumping Test: Tes (please enclose) No
			Yield:
			14, WATER QUALITY
			Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No Please enclose lab results.
			15. ARTIFICIAL FILTER (filter pack)
			Installed from 7.0 ft. to 19.0 ft. Effective size 1.43 Uniformity Coefficient 1.30
			Effective size 1.43 Uniformity Coefficient 1.30
			16. WELL GROUTED? Yes No
			☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
	 		
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft direction Type
			Well Disinfected ☐ Yes ☐ No Type: Amount:
			18. PUMP: Date installed: Not installed □
			Mfr. Name: Model No.:
			H.P Volts Length of drop pipe ft. Capacity gpm
			TYPE: Submersible Jet (shallow) Turbine
			☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal
			19. WELL DRILLER: JEREMY RINGLER CERT. NO.: 02294 Address: (Print) Level: A B C D (circle one)
			176 COMMERCE BLVD STATESVILLE, NC 28625
*Indicate Water Bearing Zones			Telephone No.: 704-872-7686 Fax No.: 704-872-0248
(Use a 2nd sheet if needed)			 WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
5. REMARKS:			ייין פאיטטווער פווע מווע יפאטרי וע מעם נט מום טפטנ עו דווץ המעשופטעם מוע שפוופו.
BENTONITE SEAL 5.0 - 7.0 FEET			_ ^
DETTIONITE SERE S.O - 7.0 (EE)			Signed: 03/05/21
			Signed: Date: Date:
6. TYPE: ☐ Mud Rotary ☐ Jetted		orod	
□ Dug	_	riven	If D Level Driller, provide supervising driller's name:
☐ Cable tool			



Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER		2000 00	54.561, 5514.11514, 65.252.11.1551, (55.57.255.11514)
1. WELL OWNER INFORMATION:			7. PERMIT NUMBER: SC0037401
Name: SANTEE COOPER	48		300037401
(last)	(firs	it)	8. USE:
Address: ONE RIVERWOOD DRIVE			☐ Residential ☐ Public Supply ☐ Process
City: MONCKS CORNER State: SC	Zip: 29	9461	☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement
Telephone: Work:	Home:		9. WELL DEPTH (completed) Date Started: 03/02/21
2. LOCATION OF WELL: SC CO	DUNTY: BERK	ELEY	ft. Date Completed: 03/02/21
Name: CROSS GENERATING ST			10. CASING: Threaded Welded
Street Address: 553 CROSS STA)	Diam.: 2 INCH Height: Above ☐ Below ☐
	Zip: 29468		Type: D PVC Galvanized Surface 2.5 ft.
V 3. V 3. V 3. S 3. S 3. S 3. S 3. S 3.	25400		Steel Other Weight
Latitude: 33° 23' 10.94" Longitude	: 80° 06' 56	.66"	in, toft, depth
3. PUBLIC SYSTEM NAME: PU	IBLIC SYSTE	M NUMBER:	11. SCREEN:
	CGYP-	6	Type: SCH 40 PVC Diam.: 2 INCH
4. ABANDONMENT: ☐ Yes Ø	No		Slot/Gauge:
			ft, andft. USE SECOND SHEET
Grouted Depth: from f	ft. to	ft.	Sieve Analysis Yes (please enclose) No
· · · · · · · · · · · · · · · · · · ·	*Thickness		12. STATIC WATER LEVEL 6.0 ft. below land surface after 24 hours
Formation Description	of	Bottom of	
	Stratum	Stratum	13. PUMPING LEVEL Below Land Surface. ft. after hrs. Pumping G.P.M.
SAND	19.0	19.0	Pumping Test: Yes (please enclose)
			Yield:
			14. WATER QUALITY
			Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
			Please enclose lab results.
			15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
			Installed from <u>7.0</u> ft. to <u>19.0</u> ft.
			Effective size 1.43 Uniformity Coefficient 1.30
			16. WELL GROUTED? ☑ Yes ☐ No
			☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
			Depth: From <u>0.0</u> ft. to <u>5.0</u> ft.
			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft direction
			Туре
			Well Disinfected ☐ Yes ☐ No Type: Amount:
			18. PUMP: Date installed: Not installed
			Mfr. Name: Model No.:
			H.PVolts Length of drop pipeft. Capacity gpm
			TYPE: Submersible Jet (shallow) Turbine Jet (deep) Reciprocating Centrifugal
			19. WELL DRILLER: JEREMY RINGLER CERT. No.: 02294
			Address: (Print) Level: A B C D (circle one)
			176 COMMERCE BLVD STATESVILLE, NC 28625
*Indicate Water Bearing Zones			Telephone No.; 704-872-7686 Fax No.: 704-872-0248
-			20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under
(Use a 2nd sheet if needed)			my direction and this report is true to the best of my knowledge and belief.
5. REMARKS:			
BENTONITE SEAL 5.0 - 7.0 FEET			0-0-
			Signed:
			Well Driller
6. TYPE: ☐ Mud Rotary ☐ Jetted	П	Bored	If D t avail Driller provide augeoriaine drillede serve
Dug Air Rot	_	Oriven	If D Level Driller, provide supervising driller's name:
☐ Cable tool ☐ Other	,		





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

MEMORANDUM

January 27, 2022 File No. 132892-013

SUBJECT: Slug Testing Results

Cross Generating Station

Rising-head and falling-head permeability ("slug") tests were conducted for the newly installed monitoring wells in the vicinity of the Closed Gypsum Pond, site-wide background wells and nature and extent monitoring wells for the Bottom Ash Pond and Class 2 Landfill. These slug tests were conducted to measure the hydraulic conductivity of the uppermost aquifer for the newly installed/existing monitoring wells, compare them to historical results documented in the "Site Hydrogeologic Characterization Report" by Garrett & Moore in 2011, and if necessary and appropriate, refine the hydraulic properties in the groundwater flow and solute transport model.

SLUG TESTING AND DATA ANALYSIS PROCEDURES

To conduct the slug tests at the well locations, the following steps were completed at each location.

- Static water level measurements were collected at the well prior to the test.
- To measure the displacement of the water column over time in the well, a pressure transducer was lowered to the bottom of the well (In-Situ Level Troll™).
- A solid PVC rod was constructed cut to length and attached to a rope to be used as a slug of known volume to displace water within the well.
- The slug was lowered into the well instantaneously and completely below the static water level without splashing the water column. The water level was then allowed to recover to within 90 percent of the static water level. This portion of the test constituted the "slug in" test.
- Once the water level recovered the slug was removed instantaneously and completely from the
 water column and the water level was allowed to recover to within 90 percent of the static
 water level. This portion of the test constituted the "slug out" test.
- This pair of slug in and slug out tests were repeated at each well up to three times to compare results and obtain a geometric mean for hydraulic conductivity.
- The measured rate of recovery of the water level is a function of the horizontal hydraulic conductivity of the aquifer material in the vicinity of the monitoring well.

The slug test data were analyzed using the HydroSOLVE, Inc. AQTESOLV for Windows™ program according to the Bouwer-Rice solution method. This method estimates hydraulic conductivity through graphical straight line slope matching. The data output and graphs generated by AQTESOLV™ are provided in Attachment A. Calculated values of K based on the slug test data are presented in Table 1.

South Carolina Public Service Authority (Santee Cooper) 27 January 2021 Page 2

SLUG TESTING RESULTS

The range of hydraulic conductivities from the monitoring wells that were tested were 1.387E-04 (cm/sec) to 4.800E-03 (cm/sec). These results are comparable to the Site Hydrogeologic Characterization Report which reported a range of hydraulic conductivities of 3.357E-04 (cm/sec) to 8.93E-03 (cm/sec) for the shallow aquifer. This range of hydraulic conductivities is typical for the soil types identified and for this depositional setting. This information, combined with the calculated horizontal hydraulic gradients, and an assumed effective porosity of 25 percent will be used to report on groundwater flow direction and rate following each semiannual sampling event as required by § 257.93(c) of the Federal CCR Rule.



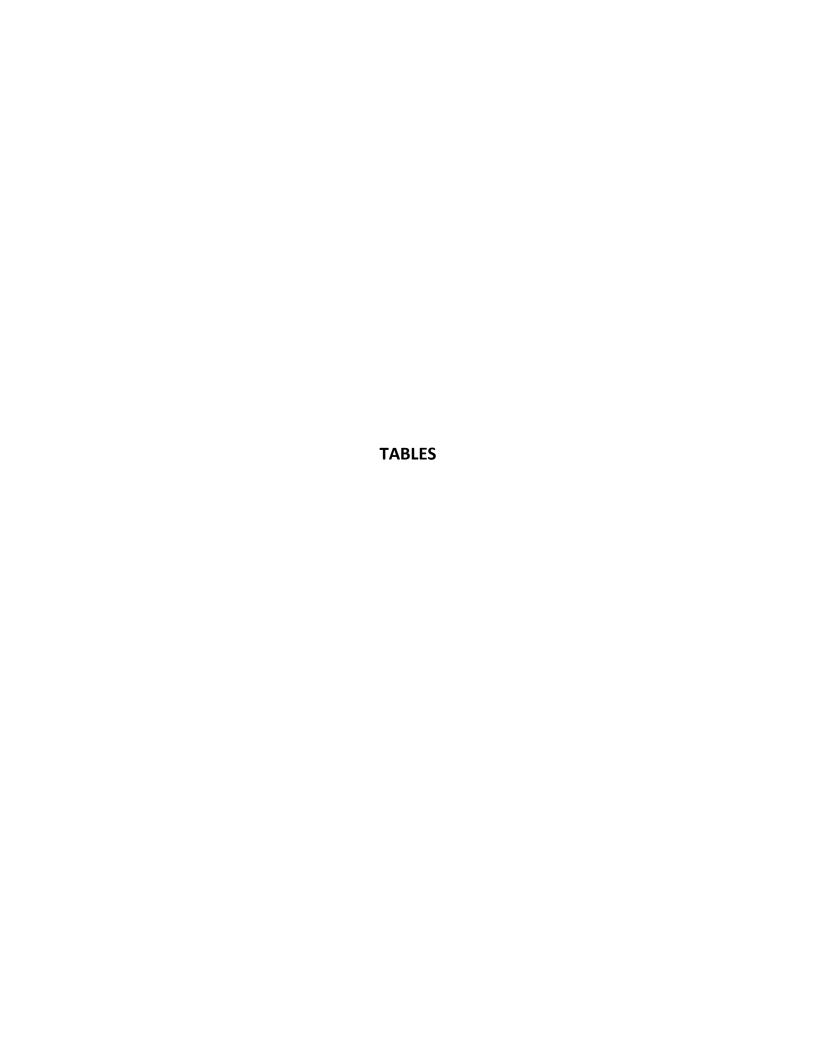


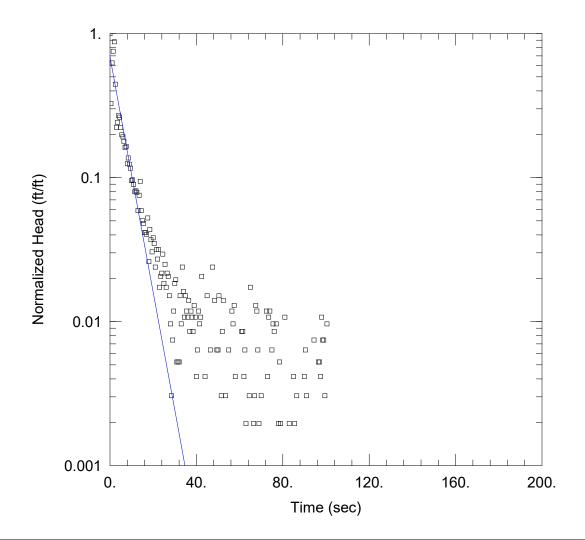
TABLE 1
SUMMARY OF SLUG TEST DATA
CROSS GENERATING STATION
SANTEE COOPER
CROSS, SOUTH CAROLINA

Well ID	Slug In 1 (cm/sec)	Slug Out 1 (cm/sec)	Slug In 2 (cm/sec)	Slug Out 2 (cm/sec)	Slug In 3 (cm/sec)	Slug Out 3 (cm/sec)	Geom. Mean (cm/sec)	Formatted Geom. (cm/sec)
CGYP-5	0.0001439	0.0001419	0.0001481	0.0001225			0.000138734	1.387E-04
CGYP-2	0.0003882	0.000484	0.0004948	0.0004822			0.000460139	4.601E-04
CGYP-6	0.0005347	0.0004815	0.0005616	0.0005252			0.000524946	5.249E-04
CGYP-3	0.0005141	0.0005617	0.0005961	0.0005746			0.000560802	5.608E-04
POZ-4	0.0006012	0.0006036	0.000628	0.0006124			0.00061121	6.112E-04
CGYP-4	0.0007695	0.0007741	0.0007724	0.0007743			0.000772573	7.726E-04
CCMAP-1	0.001106	0.001122	0.001127	0.001169			0.001130763	1.131E-03
PM-1	0.002385	0.001913	0.003361	0.00166	0.006277	0.00214	0.002644383	2.644E-03
CCMAP-2	0.002834	0.002656	0.002835	0.002556			0.0027176	2.718E-03
CGYP-1	0.001177	0.004646	0.00266	0.004105	0.002869	0.004905	0.003071874	3.072E-03
CBW-1	0.005518	0.004379	0.004712	0.004799	0.004725	0.00474	0.004800452	4.800E-03

Notes:

Geom. = Geometric Mean





Data Set: C:\Users\nschaffer\Documents\SCC slug working\CBW1 Slug In 1.aqt

Date: 11/08/21 Time: 10:58:16

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CBW-1

AQUIFER DATA

Saturated Thickness: 15.01 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CBW-1)

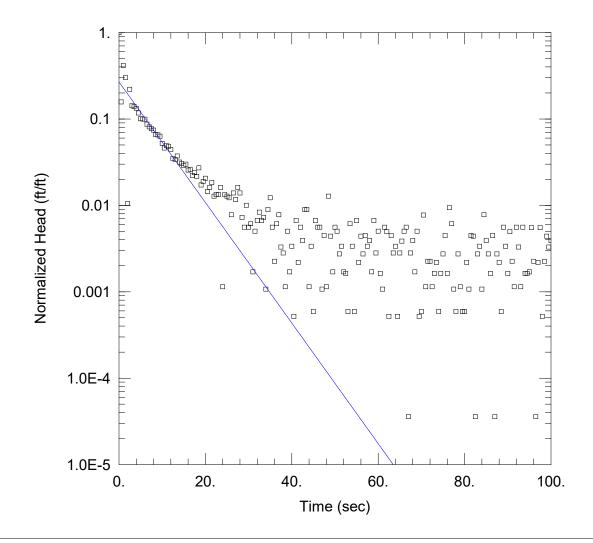
Initial Displacement: 0.9118 ft Static Water Column Height: 15.01 ft

Total Well Penetration Depth: 15.01 ft Screen Length: 10. ft Casing Radius: 0.083 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.005518 cm/sec y0 = 0.6261 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CBW1 Slug In 2.aqt

Date: 11/08/21 Time: 11:06:54

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CBW-1

AQUIFER DATA

Saturated Thickness: 15.01 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CBW-1)

Initial Displacement: 1.802 ft Static Water Column Height: 15.01 ft

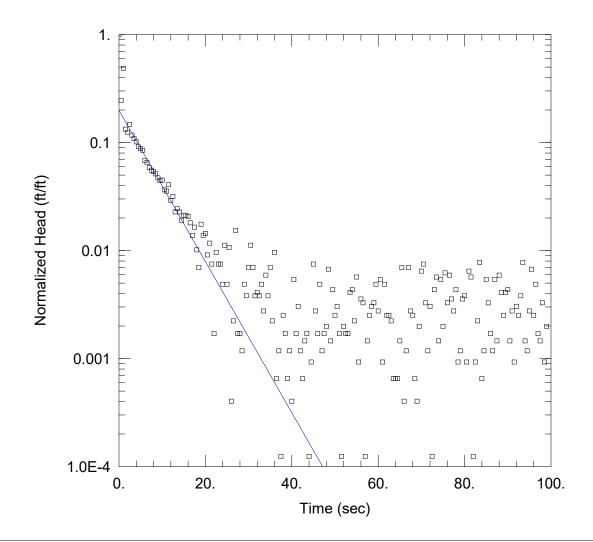
Total Well Penetration Depth: 15.01 ft Screen Length: 10. ft Casing Radius: 0.083 ft Well Radius: 0.3438 ft

using radius. <u>0.000</u> it

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004712 cm/sec y0 = 0.4834 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CBW1 Slug in 3.aqt

Date: 11/08/21 Time: 11:44:47

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CBW-1

AQUIFER DATA

Saturated Thickness: <u>15.01</u> ft Anisotropy Ratio (Kz/Kr): <u>1.</u>

WELL DATA (CBW-1)

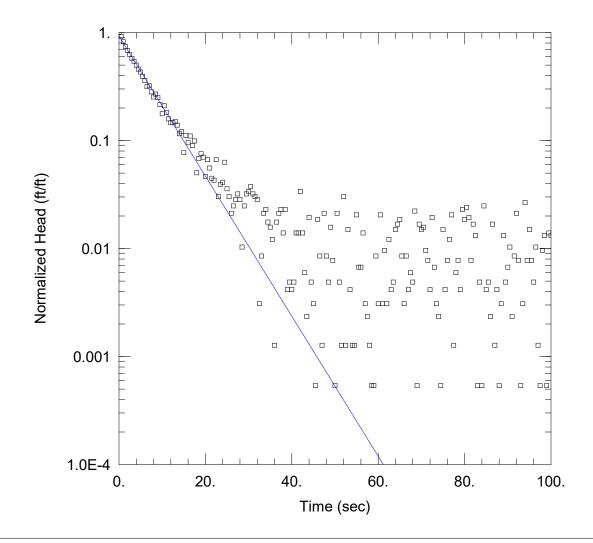
Initial Displacement: 1.896 ft Static Water Column Height: 15.01 ft

Total Well Penetration Depth: 15.01 ft Screen Length: 10. ft Casing Radius: 0.083 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004725 cm/sec y0 = 0.3762 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CBW1 Slug out 1.aqt

Date: 11/08/21 Time: 10:59:18

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CBW-1

AQUIFER DATA

Saturated Thickness: 15.01 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CBW-1)

Initial Displacement: 0.5517 ft

Static Water Column Height: 15.01 ft

Total Well Penetration Depth: 15.01 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.083 ft

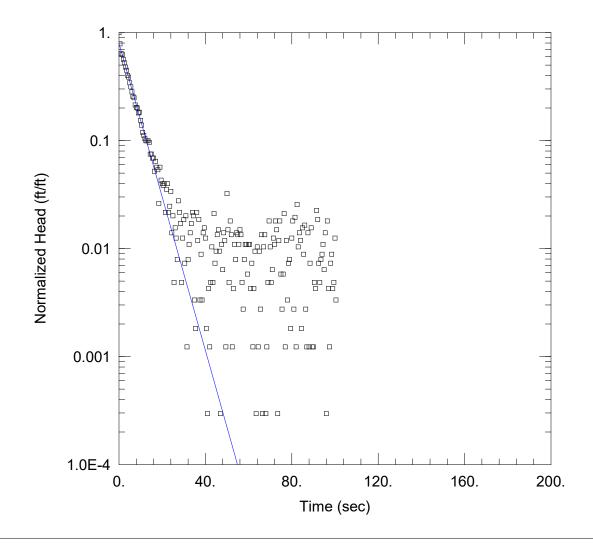
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.004379 cm/sec

y0 = 0.5124 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CBW1 Slug out 2.aqt

Date: 11/08/21 Time: 11:39:00

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CBW-1

AQUIFER DATA

Saturated Thickness: 15.01 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CBW-1)

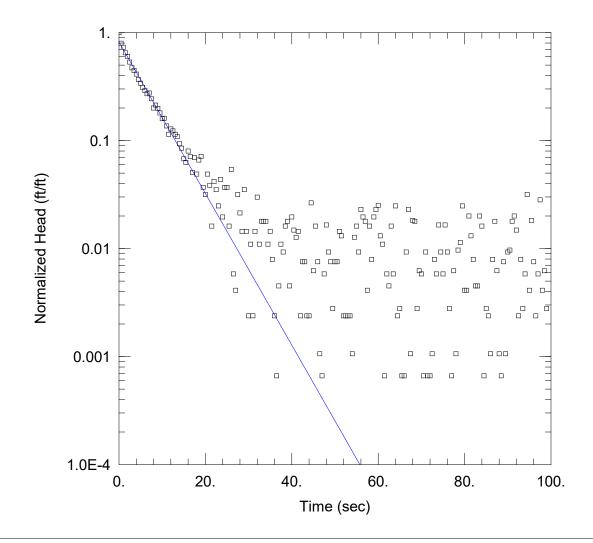
Initial Displacement: 0.6562 ft Static Water Column Height: 15.01 ft

Total Well Penetration Depth: 15.01 ft Screen Length: 10. ft Well Radius: 0.3438 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004799 cm/sec y0 = 0.5205 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CBW1 Slug out 3.aqt

Date: 11/08/21 Time: 11:51:27

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CBW-1

AQUIFER DATA

Saturated Thickness: 15.01 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CBW-1)

Initial Displacement: 0.5804 ft

Static wat

Static Water Column Height: 15.01 ft

Total Well Penetration Depth: 15.01 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Well Radius: 0.3438 ft

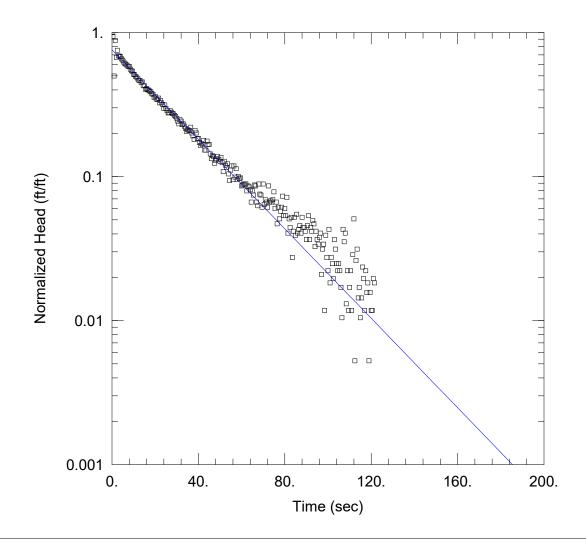
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.00474 cm/sec

y0 = 0.4754 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP1 Slug in 1.aqt

Date: 11/08/21 Time: 16:24:09

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CCMAP-1

AQUIFER DATA

Saturated Thickness: 18.75 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-1)

Initial Displacement: 0.767 ft Static Water Column Height: 18.75 ft

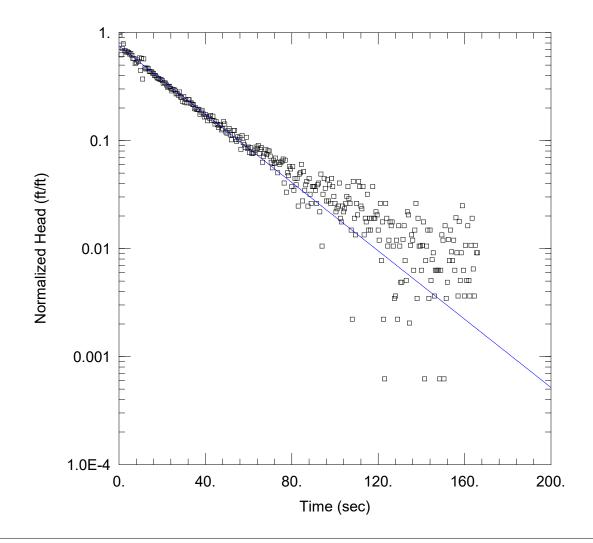
Total Well Penetration Depth: 18.75 ft Screen Length: 10. ft

Casing Radius: 0.0833 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001106 cm/sec y0 = 0.5808 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP1 Slug in 2.aqt

Date: 11/08/21 Time: 16:23:51

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CCMAP-1

AQUIFER DATA

Saturated Thickness: 18.75 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-1)

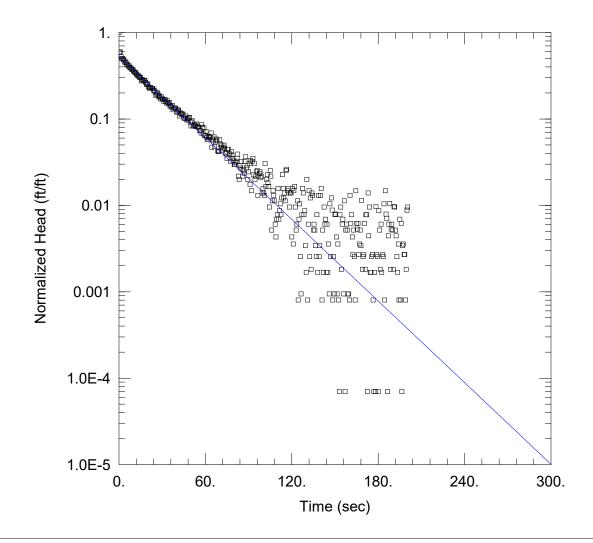
Initial Displacement: 0.7044 ft Static Water Column Height: 18.75 ft

Total Well Penetration Depth: 18.75 ft Screen Length: 10. ft Casing Radius: 0.0833 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001127 cm/sec y0 = 0.5305 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP1 Slug out 1.aqt

Date: 11/08/21 Time: 16:23:35

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CCMAP-1

AQUIFER DATA

Saturated Thickness: 18.75 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-1)

Initial Displacement: 1.144 ft Static Water Column Height: 18.75 ft

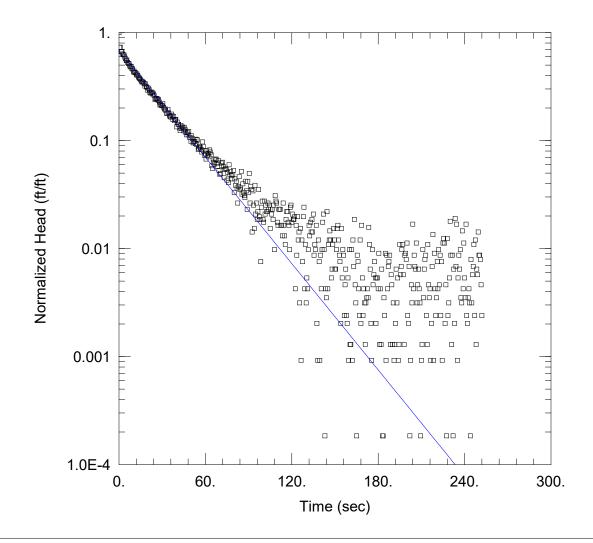
Total Well Penetration Depth: 18.75 ft Screen Length: 10. ft

Casing Radius: 0.0833 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001122 cm/sec y0 = 0.6091 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP1 Slug out 2.aqt

Date: 11/08/21 Time: 16:20:26

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CCMAP-1

AQUIFER DATA

Saturated Thickness: 18.75 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-1)

Initial Displacement: 0.9028 ft Static Water Column Height: 18.75 ft

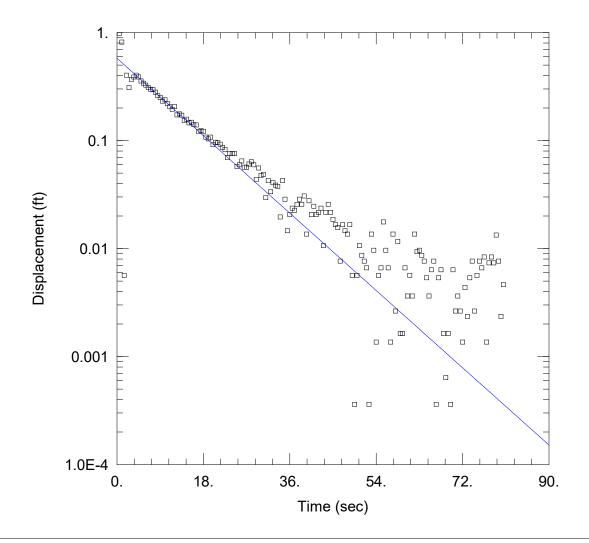
Total Well Penetration Depth: 18.75 ft Screen Length: 10. ft

Casing Radius: 0.0833 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001169 cm/sec y0 = 0.6094 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP-2 Slug In 1.aqt

Date: 11/08/21 Time: 16:39:53

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CCMAP-2

AQUIFER DATA

Saturated Thickness: 18.65 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-2)

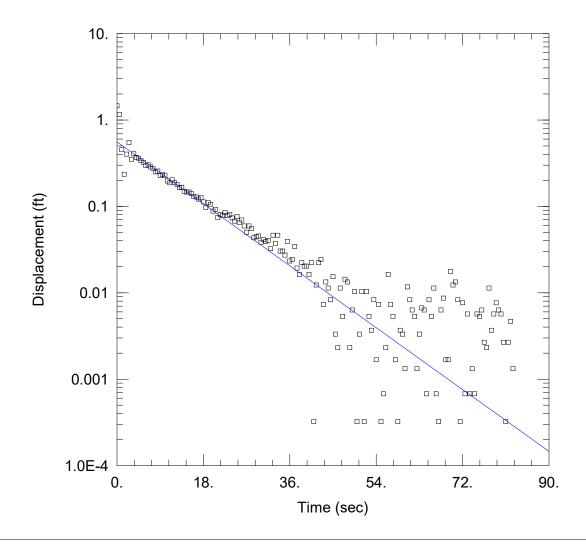
Initial Displacement: 1.109 ft Static Water Column Height: 18.65 ft

Total Well Penetration Depth: 18.65 ft Screen Length: 10. ft Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002834 cm/sec y0 = 0.5778 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP-2 Slug in 2.aqt

Date: 11/08/21 Time: 16:59:53

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CCMAP-2

AQUIFER DATA

Saturated Thickness: 18.65 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-2)

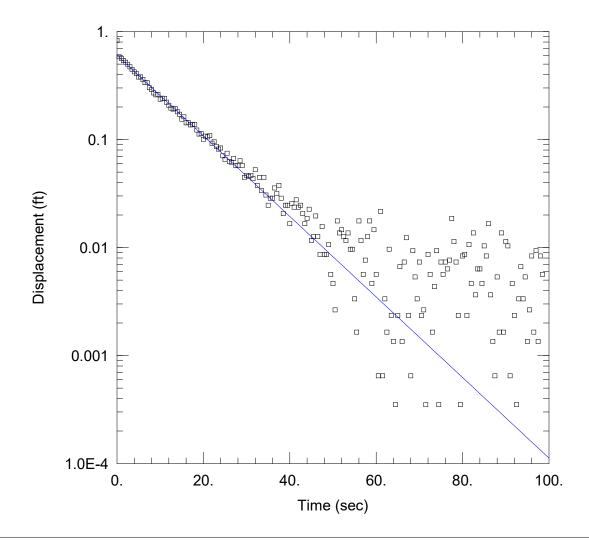
Initial Displacement: 1.46 ft Static Water Column Height: 18.65 ft

Total Well Penetration Depth: 18.65 ft Screen Length: 10. ft Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002835 cm/sec y0 = 0.5577 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP-2 Slug out 1.aqt

Date: 11/08/21 Time: 16:55:05

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CCMAP-2

AQUIFER DATA

Saturated Thickness: 18.65 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-2)

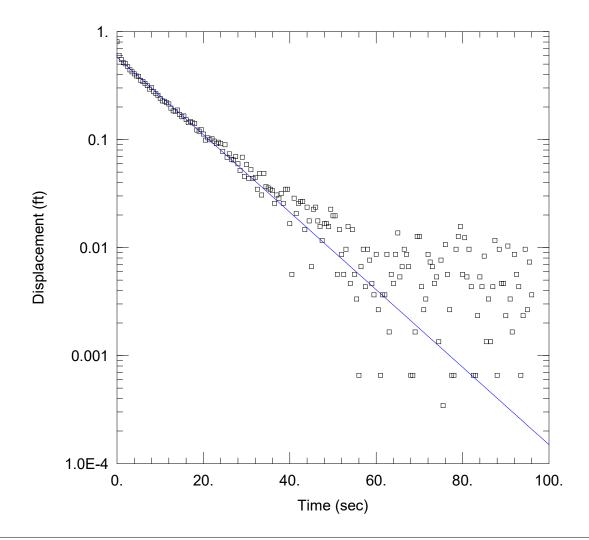
Initial Displacement: 0.8286 ft Static Water Column Height: 18.65 ft

Total Well Penetration Depth: 18.65 ft Screen Length: 10. ft Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002656 cm/sec y0 = 0.6026 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CCMAP-2 Slug out 2.aqt

Date: 11/08/21 Time: 17:19:40

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper Project: 131539

Location: Cross, SC Test Well: CCMAP-2

AQUIFER DATA

Saturated Thickness: 18.65 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CCMAP-2)

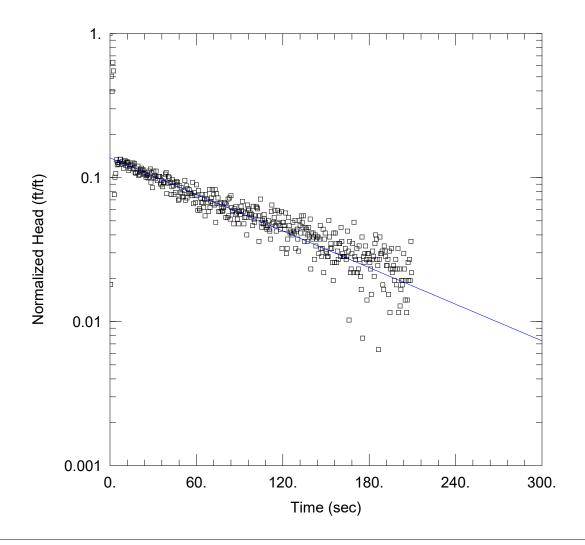
Initial Displacement: 0.8047 ft Static Water Column Height: 18.65 ft

Total Well Penetration Depth: 18.65 ft Screen Length: 10. ft Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002556 cm/sec y0 = 0.5789 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-1 Slug in 1.aqt

Date: 11/09/21 Time: 09:06:02

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-1

AQUIFER DATA

Saturated Thickness: 9.32 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-1)

Initial Displacement: 0.7749 ft

Total Well Penetration Depth: 10. ft

Casing Radius: 0.08333 ft

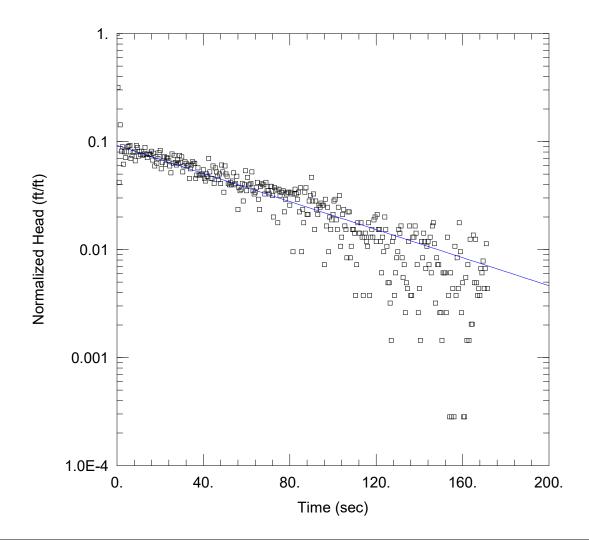
Static Water Column Height: 9.32 ft

Screen Length: 10. ft
Well Radius: 0.3438 ft
Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001177 cm/sec y0 = 0.1063 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-1 Slug in 2.aqt

Date: 11/09/21 Time: 12:22:13

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-1

AQUIFER DATA

Saturated Thickness: 9.33 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-1)

Initial Displacement: 0.8622 ft

Static Water Column Height: 9.32 ft

Total Well Penetration Depth: 9.32 ft

Screen Length: 9.32 ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

Gravel Pack Porosity: 0.3

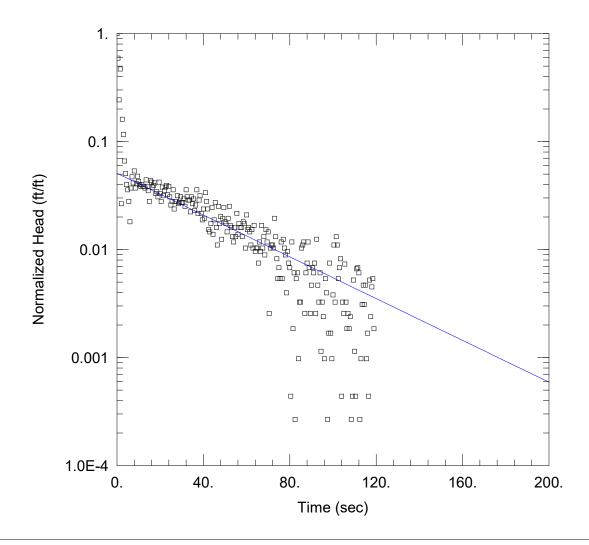
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.00266 cm/sec

y0 = 0.07938 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-1 Slug in 3.aqt

Date: 11/09/21 Time: 12:19:23

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-1

AQUIFER DATA

Saturated Thickness: 9.33 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-1)

Initial Displacement: 1.416 ft Static Water Column Height: 9.32 ft

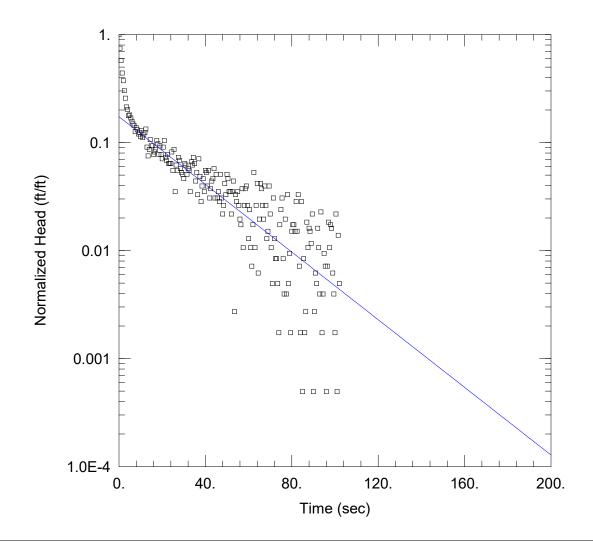
Total Well Penetration Depth: 9.32 ft Screen Length: 9.32 ft Well Radius: 0.3438 ft

Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002869 cm/sec y0 = 0.07198 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-1 Slug out 1.aqt

Date: 11/09/21 Time: 12:21:09

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-1

AQUIFER DATA

Saturated Thickness: 9.33 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-1)

Initial Displacement: 0.4488 ft

Static Water Column Height: 9.32 ft

Total Well Penetration Depth: 9.32 ft

Screen Length: 9.32 ft Well Radius: 0.3438 ft Gravel Pack Porosity: 0.2

Casing Radius: 0.08333 ft

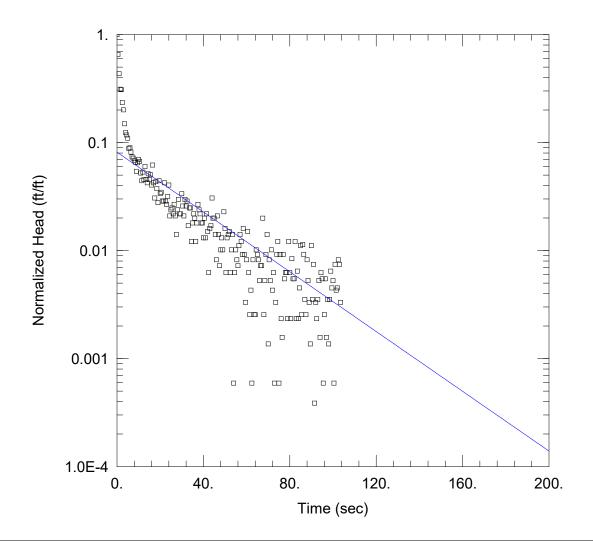
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.004646 cm/sec

y0 = 0.07784 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-1 Slug out 2.aqt

Date: 11/09/21 Time: 12:23:26

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-1

AQUIFER DATA

Saturated Thickness: 9.33 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-1)

Initial Displacement: 1.022 ft Static Water Column Height: 9.32 ft

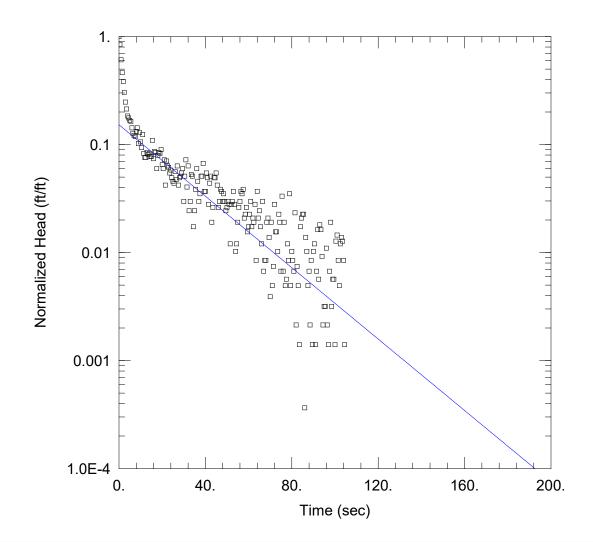
Total Well Penetration Depth: 9.32 ft Screen Length: 9.32 ft Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004105 cm/sec y0 = 0.08324 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-1 Slug out 3.aqt

Date: 11/09/21 Time: 12:27:39

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-1

AQUIFER DATA

Saturated Thickness: 9.33 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-1)

Initial Displacement: 0.5648 ft

Total Well Penetration Depth: 9.32 ft

Casing Radius: 0.08333 ft

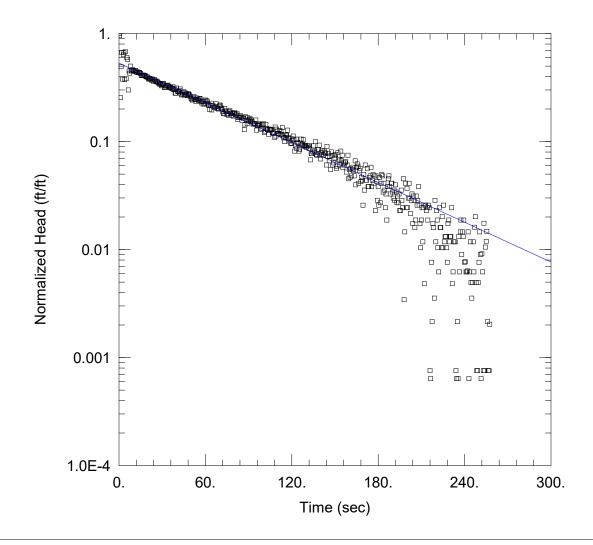
Static Water Column Height: 9.32 ft

Screen Length: 9.32 ft Well Radius: 0.3438 ft Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004904 cm/sec y0 = 0.08604 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-2 slug in 1.aqt

Date: 11/09/21 Time: 12:40:30

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-2

AQUIFER DATA

Saturated Thickness: 10.83 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-2)

Initial Displacement: 0.7165 ft

Static Water Column Height: 10.83 ft

Total Well Penetration Depth: 10.83 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

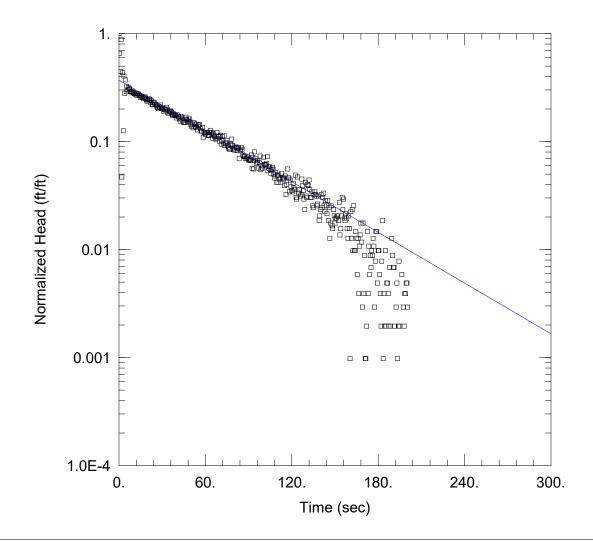
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0003882 cm/sec

y0 = 0.382 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-2 slug in 2.aqt

Date: 11/09/21 Time: 12:52:59

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-2

AQUIFER DATA

Saturated Thickness: 10.83 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-2)

Initial Displacement: 1.023 ft Static Water Column Height: 10.83 ft

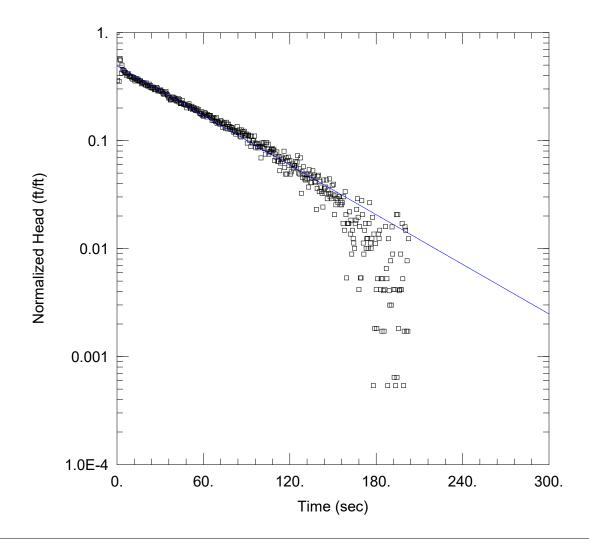
Total Well Penetration Depth: 10.83 ft Screen Length: 10. ft

Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004948 cm/sec y0 = 0.3788 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-2 slug out 1.aqt

Date: 11/09/21 Time: 12:48:20

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-2

AQUIFER DATA

Saturated Thickness: 10.83 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-2)

Initial Displacement: 0.8485 ft

Static Water Column Height: 10.83 ft

Total Well Penetration Depth: 10.83 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

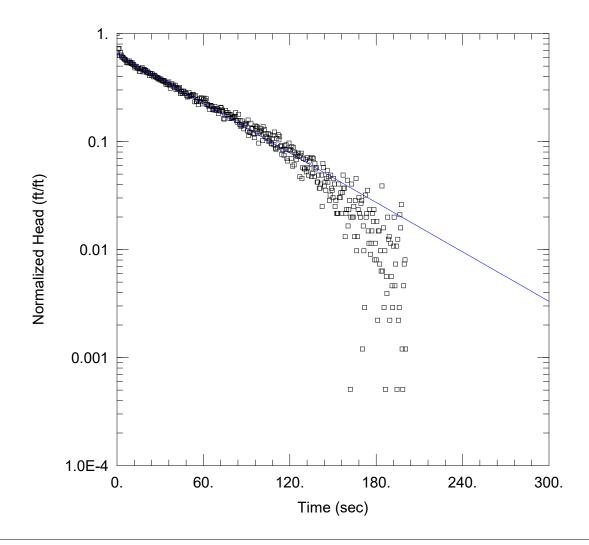
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.000484 cm/sec

y0 = 0.4172 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-2 slug out 2.aqt

Date: 11/09/21 Time: 13:16:15

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-2

AQUIFER DATA

Saturated Thickness: 10.83 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-2)

Initial Displacement: 0.5857 ft

Static Water Column Height: 10.83 ft

Total Well Penetration Depth: 10.83 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

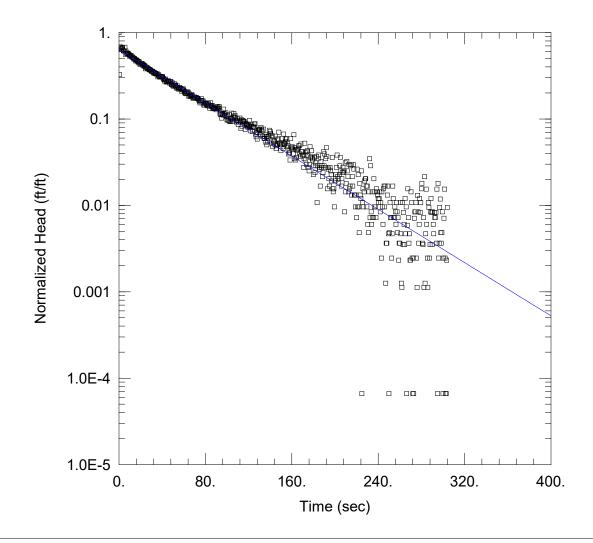
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0004822 cm/sec

y0 = 0.3778 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-3 slug in 1.aqt

Date: 11/09/21 Time: 16:18:17

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-3

AQUIFER DATA

Saturated Thickness: 13.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-3)

Initial Displacement: 0.8391 ft

Static Water Column Height: 13.71 ft

Total Well Penetration Depth: 13.71 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

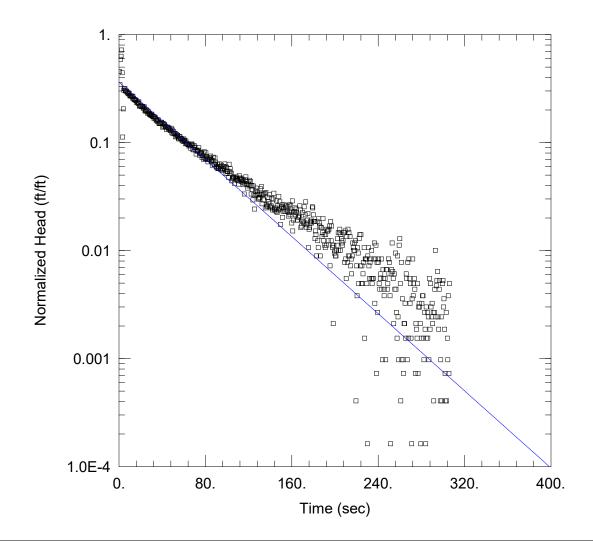
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005141 cm/sec

y0 = 0.5324 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-3 slug in 2.aqt

Date: 11/09/21 Time: 16:36:50

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-3

AQUIFER DATA

Saturated Thickness: 13.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-3)

Initial Displacement: 1.76 ft Static Water Column Height: 13.71 ft

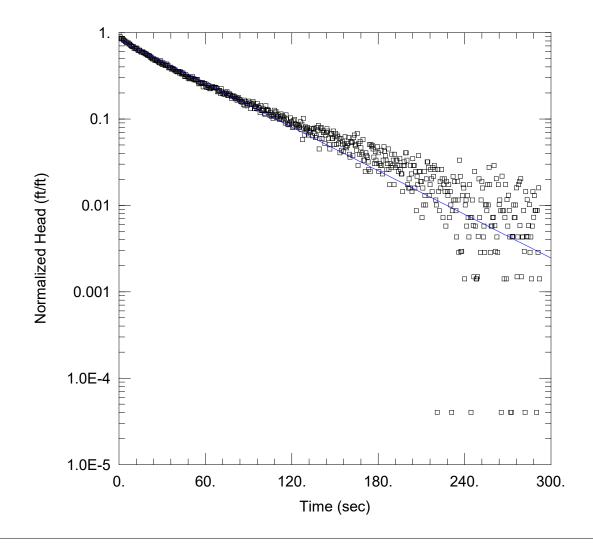
Total Well Penetration Depth: 13.71 ft Screen Length: 10. ft Well Pedius: 0.2432 ft Well Pedius: 0.2432 ft

Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005961 cm/sec y0 = 0.6374 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-3 slug out 1.aqt

Date: 11/09/21 Time: 16:32:26

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-3

AQUIFER DATA

Saturated Thickness: 13.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-3)

Initial Displacement: 0.69 ft

Static Water Column Height: 13.71 ft

Total Well Penetration Depth: 13.71 ft

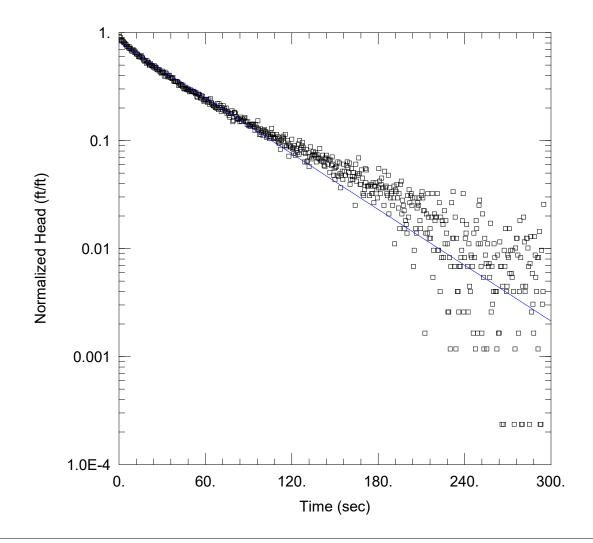
Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005617 cm/sec y0 = 0.5682 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-3 slug out 2.aqt

Date: 11/09/21 Time: 16:45:48

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-3

AQUIFER DATA

Saturated Thickness: 13.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-3)

SOLUTION

Initial Displacement: 0.7078 ft

Static Water Column Height: 13.71 ft

Total Well Penetration Depth: 13.71 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

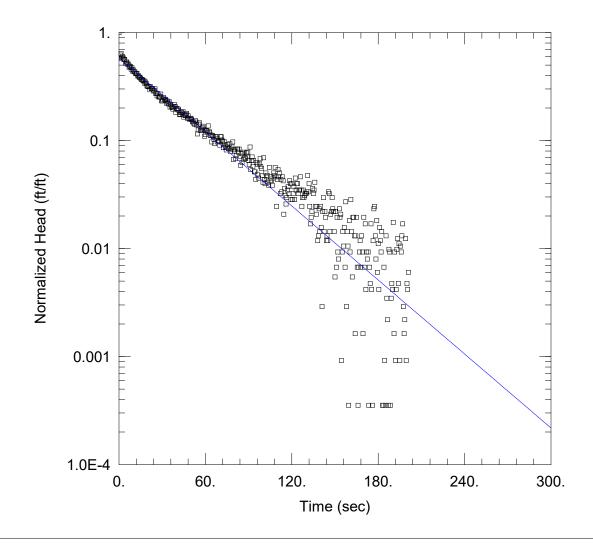
Casing Radius: 0.08333 ft

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005746 cm/sec

y0 = 0.578 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP4 Slug Out 1.aqt

Date: 11/08/21 Time: 10:52:34

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-4

AQUIFER DATA

Saturated Thickness: 14.7 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-4)

Initial Displacement: 0.7843 ft

Static Water Column Height: 14.7 ft

Total Well Penetration Depth: 14.7 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.3438 ft

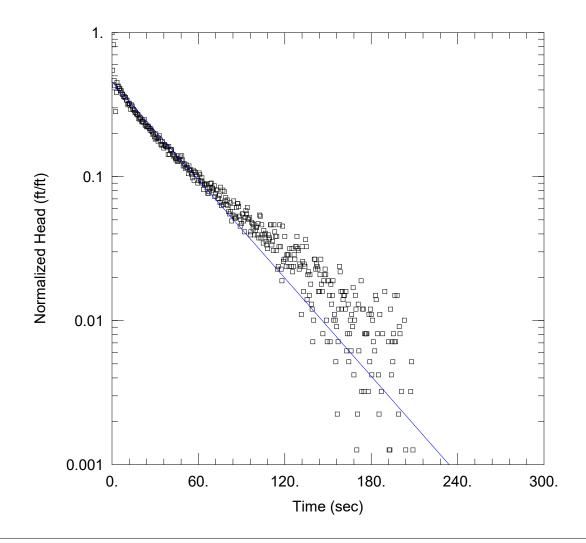
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0007741 cm/sec

y0 = 0.4567 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP4 Slug In 1.aqt

Date: 11/08/21 Time: 10:52:03

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-4

AQUIFER DATA

Saturated Thickness: 14.7 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-4)

Initial Displacement: 1.023 ft Static Water Column Height: 14.7 ft

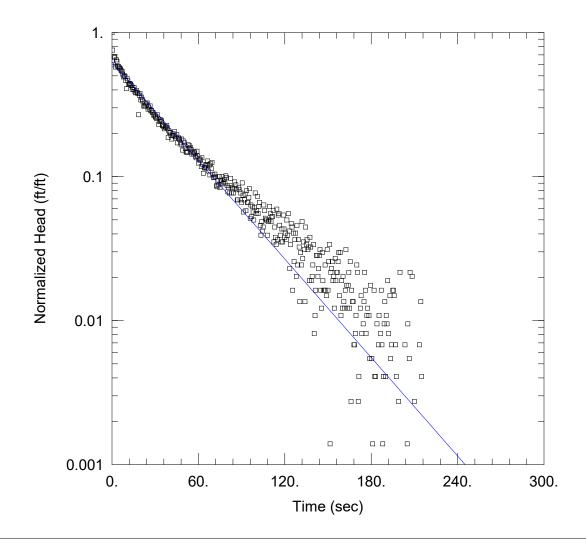
Total Well Penetration Depth: 14.7 ft Screen Length: 10. ft Casing Radius: 0.08333 ft

Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0007695 cm/secy0 = 0.4651 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP4 Slug In 2.aqt

Date: 11/08/21 Time: 10:53:20

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-4

AQUIFER DATA

Saturated Thickness: 14.7 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-4)

Initial Displacement: 0.741 ft

Total Well Penetration Depth: 14.7 ft

Casing Radius: 0.08333 ft

Static Water Column Height: 14.7 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

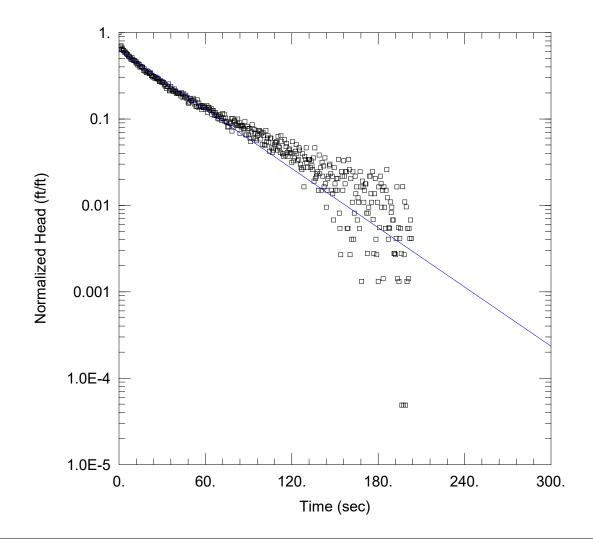
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0007724 cm/sec

y0 = 0.4623 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP4 Slug Out 2.aqt

Date: 11/08/21 Time: 10:53:38

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-4

AQUIFER DATA

Saturated Thickness: 14.7 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-4)

Initial Displacement: 0.732 ft

Static Water Column Height: 14.7 ft

Total Well Penetration Depth: 14.7 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

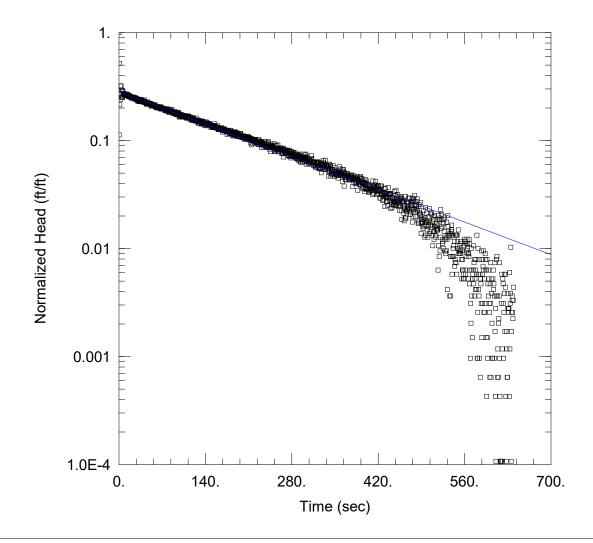
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0007743 cm/sec

y0 = 0.4594 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-5 slug in 1.aqt

Date: 11/09/21 Time: 13:37:30

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper Project: <u>131539</u>

Location: Cross, SC Test Well: CGYP-5

AQUIFER DATA

Saturated Thickness: 13.76 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-5)

Initial Displacement: 1.868 ft Static Water Column Height: 13.76 ft

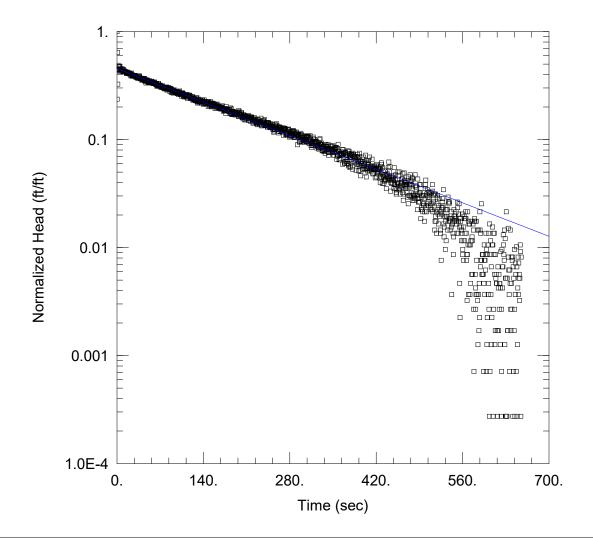
Total Well Penetration Depth: 13.76 ft Screen Length: 10. ft Casing Radius: 0.08333 ft

Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0001439 cm/secy0 = 0.5285 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-5 slug in 2.aqt

Date: 11/09/21 Time: 14:07:54

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-5

AQUIFER DATA

Saturated Thickness: 13.76 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-5)

Initial Displacement: 1.013 ft Static Water Column Height: 13.76 ft

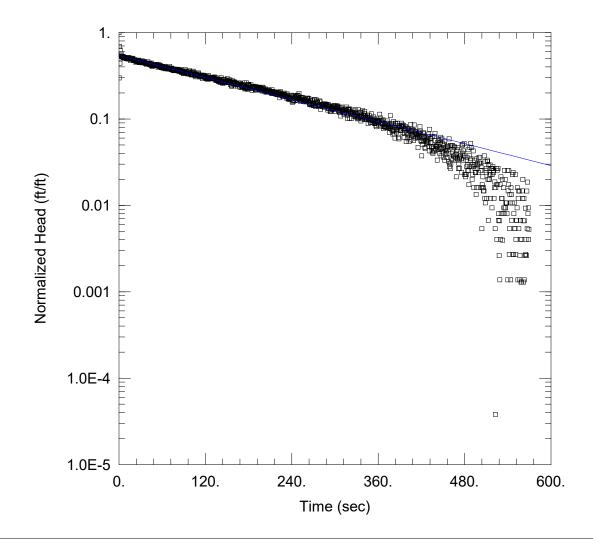
Total Well Penetration Depth: 13.76 ft Screen Length: 10. ft Casing Radius: 0.08333 ft

Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0001481 cm/secy0 = 0.4592 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-5 slug out 1.aqt

Date: 11/09/21 Time: 14:01:56

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-5

AQUIFER DATA

Saturated Thickness: 13.76 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-5)

Initial Displacement: 0.75 ft

Static Water Column Height: 13.76 ft

Total Well Penetration Depth: 13.76 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

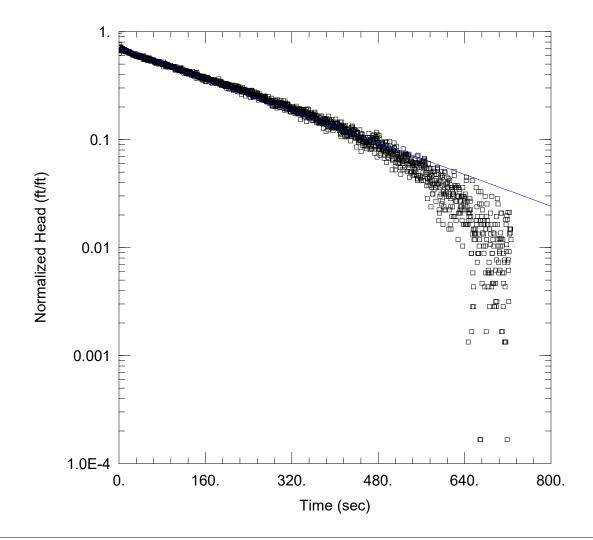
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0001419 cm/sec

y0 = 0.4073 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-5 slug out 2.aqt

Date: 11/09/21 Time: 14:52:44

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-5

AQUIFER DATA

Saturated Thickness: 13.76 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-5)

Initial Displacement: 0.6669 ft

Static Water Column Height: 13.76 ft

Total Well Penetration Depth: 13.76 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

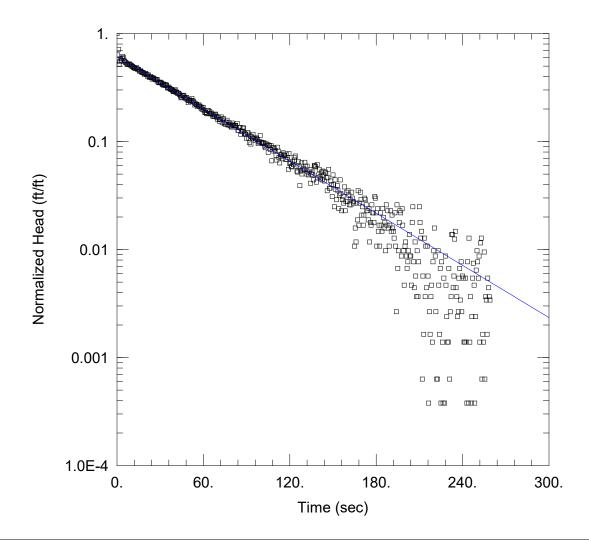
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0001225 cm/sec

y0 = 0.4725 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-6 slug in 1.aqt

Date: 11/09/21 Time: 15:07:12

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper Project: 131539

Location: Cross, SC Test Well: CGYP-6

AQUIFER DATA

Saturated Thickness: 13.37 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-6)

Initial Displacement: 0.9886 ft

Total Well Penetration Depth: 13.37 ft

Casing Radius: 0.08333 ft

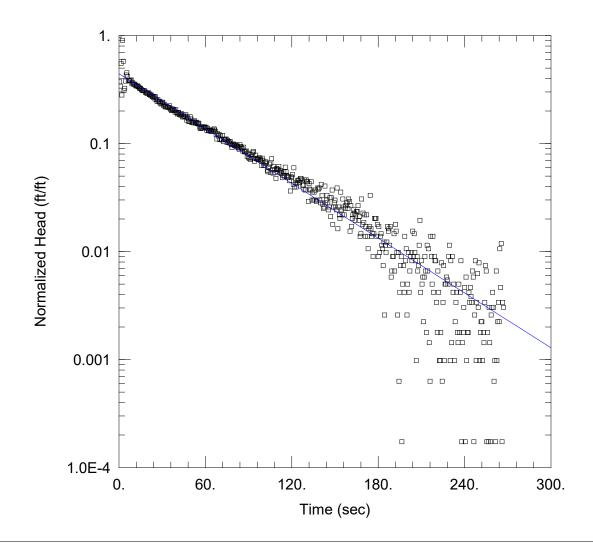
Static Water Column Height: 13.37 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005347 cm/sec y0 = 0.6054 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-6 slug in 2.aqt

Date: 11/09/21 Time: 15:16:47

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: CGYP-6

AQUIFER DATA

Saturated Thickness: 13.37 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-6)

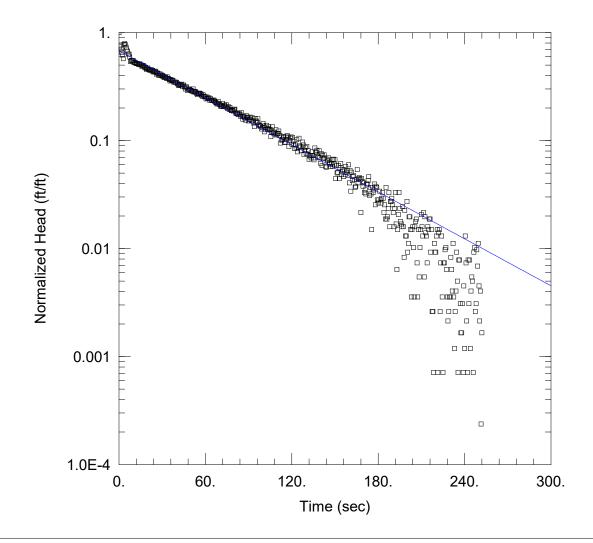
Initial Displacement: 1.244 ft Static Water Column Height: 13.37 ft

Total Well Penetration Depth: 13.37 ft Screen Length: 10. ft Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005616 cm/sec y0 = 0.5522 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-6 slug out 1.aqt

Date: 11/09/21 Time: 15:13:09

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-6

AQUIFER DATA

Saturated Thickness: 13.37 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-6)

Initial Displacement: 1.053 ft Static Water Column Height: 13.37 ft

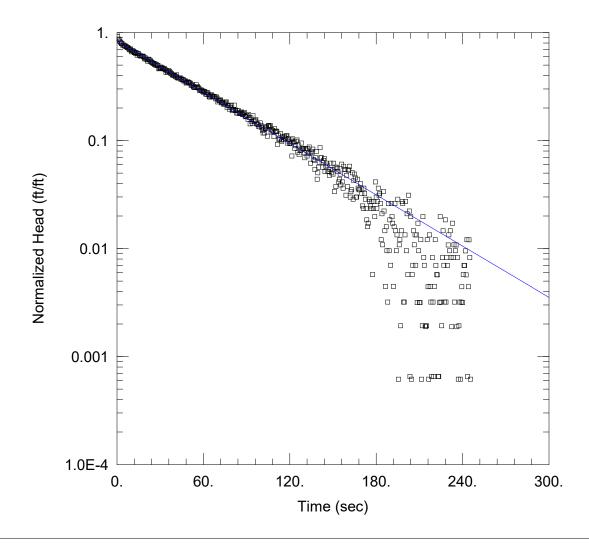
Total Well Penetration Depth: 13.37 ft Screen Length: 10. ft

Casing Radius: 0.08333 ft Well Radius: 0.3438 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004815 cm/sec y0 = 0.7143 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\CGYP-6 slug out 2.aqt

Date: 11/09/21 Time: 15:21:42

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: CGYP-6

AQUIFER DATA

Saturated Thickness: 13.37 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (CGYP-6)

Initial Displacement: 0.7865 ft

Static Water Column Height: 13.37 ft

Total Well Penetration Depth: 13.37 ft

Screen Length: 10. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

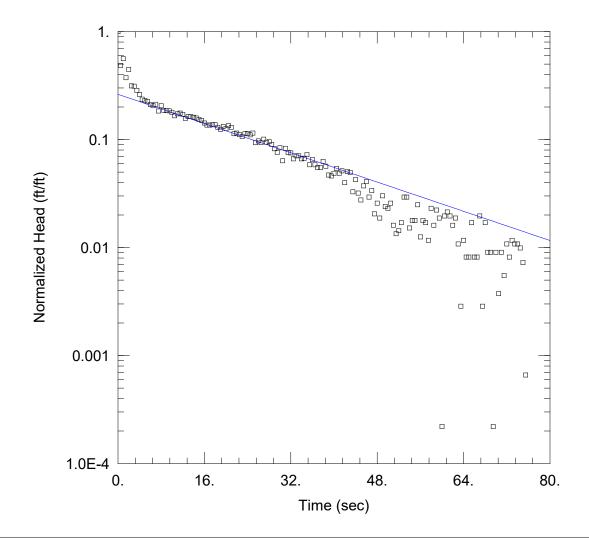
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005252 cm/sec

y0 = 0.6574 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\PM-1 slug in 1.aqt

Date: 11/10/21 Time: 15:48:50

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: PM-1

AQUIFER DATA

Saturated Thickness: <u>17.1</u> ft Anisotropy Ratio (Kz/Kr): <u>1.</u>

WELL DATA (PM-1)

Initial Displacement: 1.134 ft

Total Well Penetration Depth: 17.1 ft

Casing Radius: 0.1042 ft

Static Water Column Height: 17.1 ft

Screen Length: 17.1 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.2

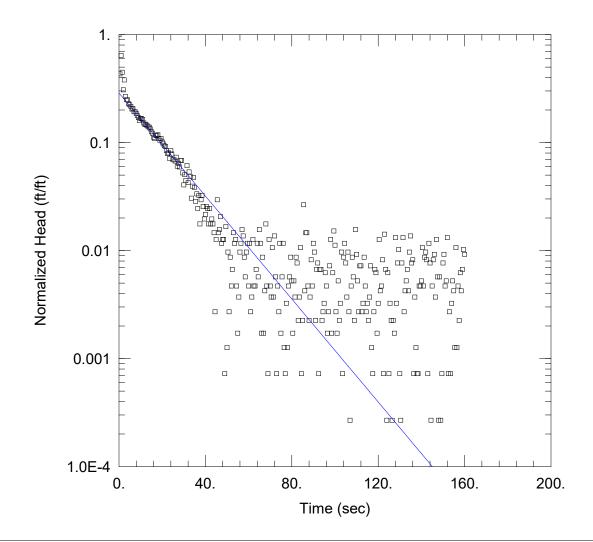
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.002385 cm/sec

y0 = 0.2976 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\PM-1 slug in 2.aqt

Date: 11/10/21 Time: 15:49:56

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: PM-1

AQUIFER DATA

Saturated Thickness: 17.1 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PM-1)

Initial Displacement: 1.006 ft

Total Well Penetration Depth: 17.1 ft

Casing Radius: 0.1042 ft

Static Water Column Height: 17.1 ft

Screen Length: 17.1 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.2

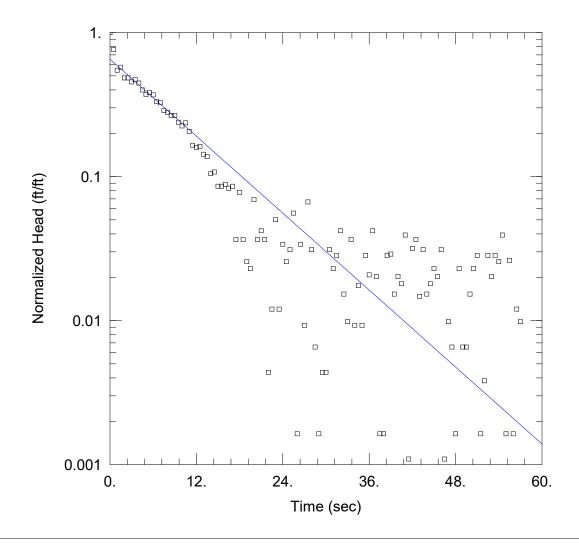
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.003361 cm/sec

y0 = 0.2893 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\PM-1 slug in 3.aqt

Date: 11/10/21 Time: 15:50:38

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: PM-1

AQUIFER DATA

Saturated Thickness: 17.1 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PM-1)

Initial Displacement: 0.3664 ft

Total Well Penetration Depth: 17.1 ft

Casing Radius: 0.1042 ft

Static Water Column Height: 17.1 ft

Screen Length: 17.1 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.2

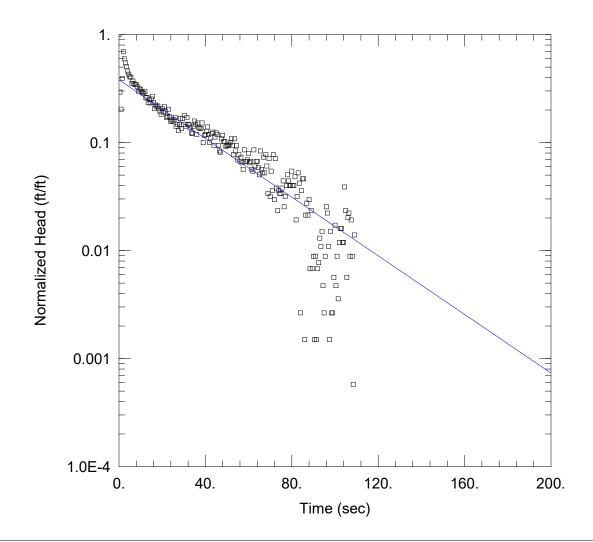
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.006277 cm/sec

y0 = 0.2392 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\PM-1 slug out 1.aqt

Date: 11/10/21 Time: 15:51:32

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: PM-1

AQUIFER DATA

Saturated Thickness: 17.1 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PM-1)

Initial Displacement: 0.4823 ft

Total Well Penetration Depth: 17.1 ft

Casing Radius: 0.1042 ft

Static Water Column Height: 17.1 ft

Screen Length: 17.1 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.2

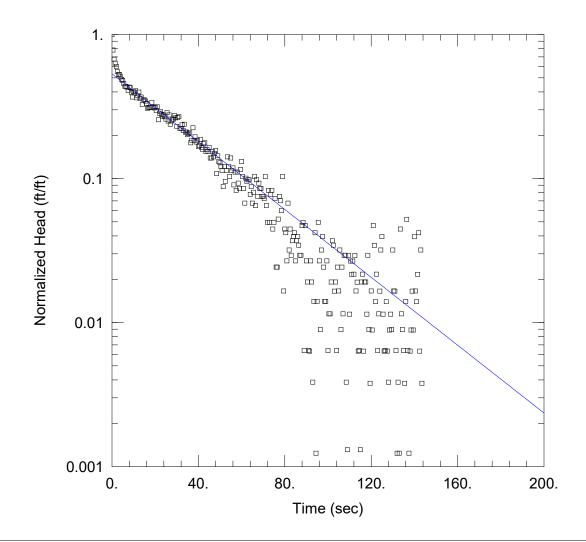
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.001913 cm/sec

y0 = 0.1835 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\PM-1 slug out 2.aqt

Date: 11/10/21 Time: 15:52:36

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: PM-1

AQUIFER DATA

Saturated Thickness: 17.1 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PM-1)

Initial Displacement: 0.3925 ft

Total Well Penetration Depth: 17.1 ft

Casing Radius: 0.1042 ft

Static Water Column Height: 17.1 ft

Screen Length: 17.1 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.2

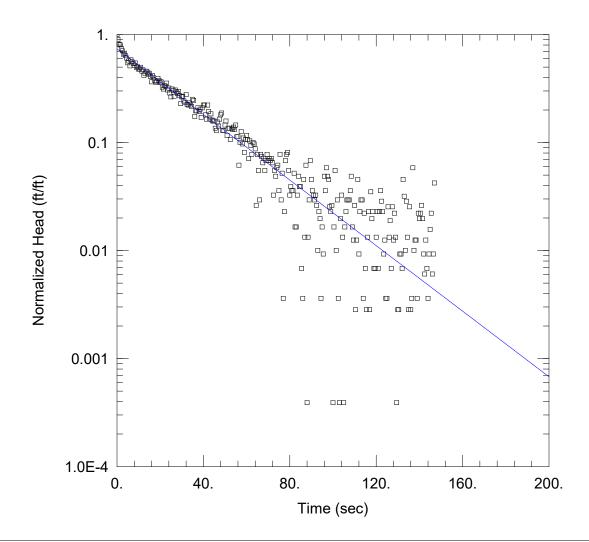
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.00166 cm/sec

y0 = 0.2096 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\PM-1 slug out 3.aqt

Date: 11/10/21 Time: 15:55:51

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: PM-1

AQUIFER DATA

Saturated Thickness: 17.1 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PM-1)

Initial Displacement: 0.3101 ft

Total Well Penetration Depth: 17.1 ft

Casing Radius: 0.1042 ft

Static Water Column Height: 17.1 ft

Screen Length: 17.1 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.2

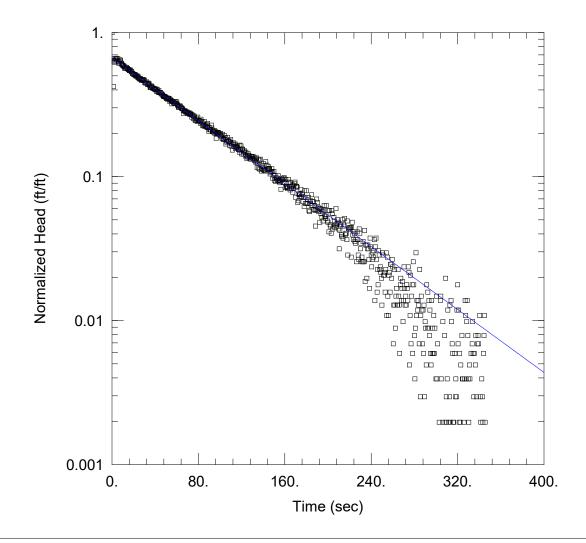
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.00214 cm/sec

y0 = 0.2286 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\POZ-4 slug in 1.aqt

Date: 11/10/21 Time: 15:43:54

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: POZ-4

AQUIFER DATA

Saturated Thickness: 8.66 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (POZ-4)

Initial Displacement: 1.016 ft

Total Well Penetration Depth: 8.66 ft

Casing Radius: 0.08333 ft

Static Water Column Height: 8.66 ft

Screen Length: <u>5.</u> ft Well Radius: 0.3438 ft

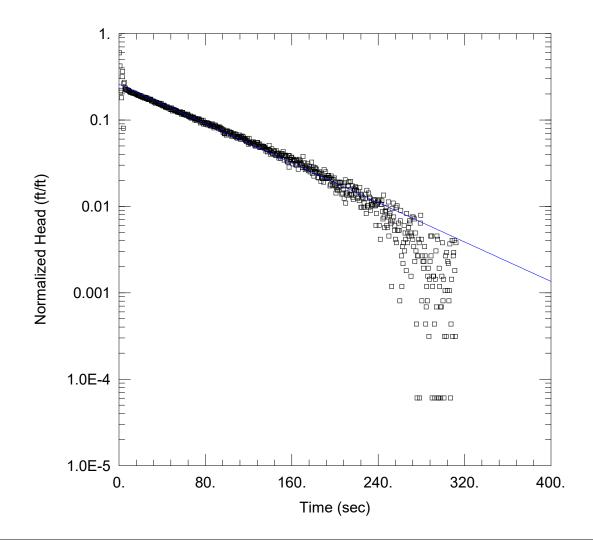
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006012 cm/sec

y0 = 0.6789 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\POZ-4 slug in 2.aqt

Date: 11/10/21 Time: 16:13:56

PROJECT INFORMATION

Company: <u>Haley & Aldrich</u> Client: <u>Santee Cooper</u>

Project: 131539 Location: Cross, SC Test Well: POZ-4

AQUIFER DATA

Saturated Thickness: 8.66 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (POZ-4)

Initial Displacement: 2.677 ft

Total Well Penetration Depth: 8.66 ft

Casing Radius: 0.08333 ft

Static Water Column Height: 8.66 ft

Screen Length: <u>5.</u> ft Well Radius: 0.3438 ft

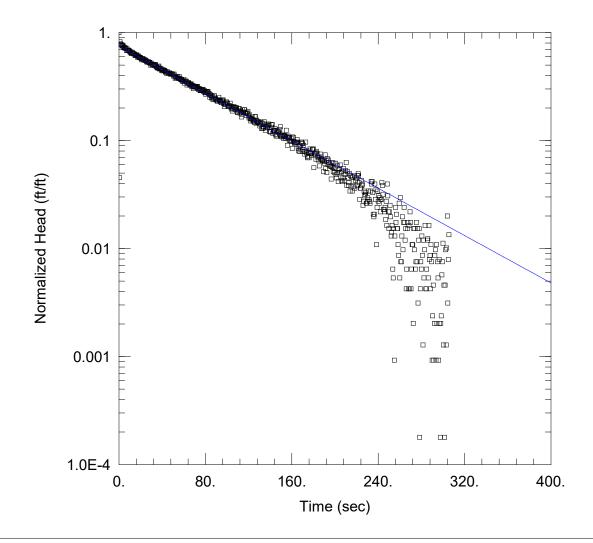
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.000628 cm/sec

y0 = 0.6943 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\POZ-4 slug out 1.aqt

Date: 11/10/21 Time: 16:01:28

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: POZ-4

AQUIFER DATA

Saturated Thickness: 8.66 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (POZ-4)

Initial Displacement: 0.9062 ft

Static Water Column Height: 8.66 ft

Total Well Penetration Depth: 8.66 ft

Screen Length: 5. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

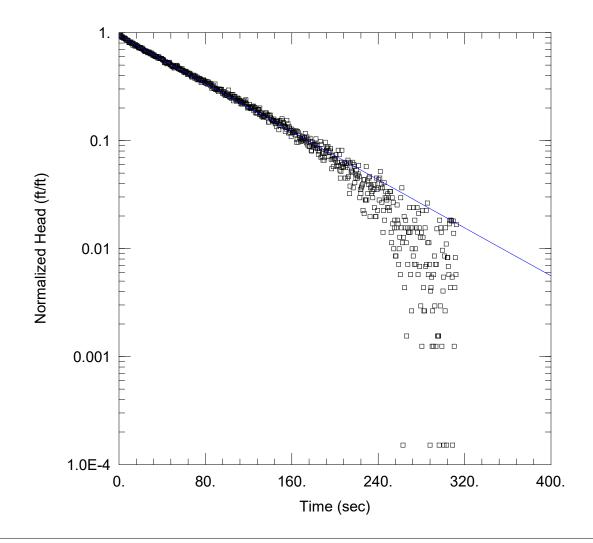
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006036 cm/sec

y0 = 0.6804 ft



Data Set: C:\Users\nschaffer\Documents\SCC slug working\POZ-4 slug out 2.aqt

Date: 11/10/21 Time: 16:32:06

PROJECT INFORMATION

Company: Haley & Aldrich Client: Santee Cooper

Project: 131539 Location: Cross, SC Test Well: POZ-4

AQUIFER DATA

Saturated Thickness: 8.66 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (POZ-4)

Initial Displacement: 0.7151 ft

Static Water Column Height: 8.66 ft

Total Well Penetration Depth: 8.66 ft

Screen Length: 5. ft Well Radius: 0.3438 ft

Casing Radius: 0.08333 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006124 cm/sec

y0 = 0.6719 ft