Nautilus Geologic Consulting, PLLC

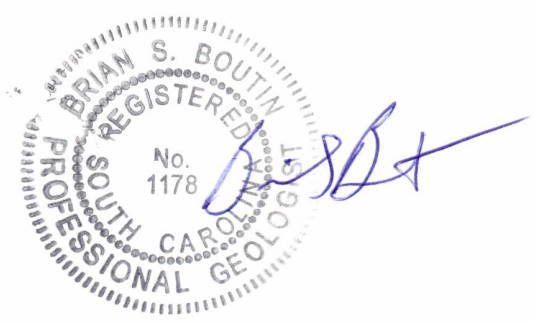
2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EPA CCR RULE COMPLIANCE

DOMINION ENERGY SOUTH CAROLINA:
Wateree Station: FGD Pond

January 2021

Prepared by:



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EXECUTIVE SUMMARY

This document presents the *2020 Annual Groundwater Monitoring and Corrective Action* report for the Flue Gas Desulfurization (FGD) Pond at Dominion Energy South Carolina (DESC) Wateree Generating Station in Wateree, Richland County, South Carolina in accordance with 40 CFR Part 257.90 (e). The FGD Pond is a coal combustion residuals (CCR) surface impoundment as defined by the US Environmental Protection Agency (EPA) CCR Rule (40 CFR Part 257.53). Pursuant to the CCR Rule (40 CFR Part 257.50 *et. seq.*), DESC is required to complete an *Annual Groundwater Monitoring and Corrective Action Report* by January 31st annually.

This report documents the status of the groundwater monitoring program for the FGD Pond, summarizes key activities completed during 2020 and any issues encountered, actions taken to resolve any identified issues, and lists key activities to be completed in 2021. The following is a summary of the current status of groundwater monitoring and corrective action for the FGD Pond.

1. At the start and end of the current annual reporting period (2020), the FGD Pond was operating under the Detection Monitoring program under 40 CFR Part 257.94.
2. Detection monitoring was conducted at the site in March and September 2020 pursuant to 40 CFR Part 257.94.
3. Confirmation monitoring was conducted in May and October 2020 to confirm the March and September 2020 Detection Monitoring results, respectively, and to supplement the site water quality database for statistical analysis.
4. Based on the 2020 Detection Monitoring and supplemental monitoring results, statistically significant increases (SSIs) over background concentrations were indicated in groundwater at the following wells for the listed Appendix III constituents:

Sample Location	Parameters Presenting SSIs
MW-FGD-02	Calcium, Chloride
MW-FGD-03	Sulfate
MW-FGD-04	Calcium
MW-FGD-05	Sulfate

5. Pursuant to 40 CFR Part 257.94 (e)(2), DESC conducted an Alternate Source Demonstration (ASD) for the SSIs identified for the Appendix III constituents in

groundwater relative to background concentrations based on the March 2020 Detection Monitoring and May 2020 supplemental monitoring events. The results of the ASD are presented in the September 2020 *Alternate Source Demonstration Report, Wateree Station FGD Pond*.

6. The results of the ASD support the position that the SSIs for calcium, chloride and sulfate in groundwater evident from statistical analysis of groundwater quality data collected during the March 2020 Detection Monitoring and May 2020 supplemental monitoring events are not due to a release from the FGD Pond.
7. In 2021, an ASD and report of results will be conducted based on the results of the September 2020 Detection Monitoring event and supplemental monitoring conducted in October 2020. The ASD report will be completed and the report of results included in the plant operating record by April 17, 2021. It is anticipated that the results of the ASD based on the September 2020 Detection Monitoring data will be similar to those based on the previous ASDs. Consequently, it is anticipated that Detection Monitoring will continue in 2021. Two rounds of detection monitoring are anticipated to be completed during March and September 2021.

1.0 INTRODUCTION

This document presents the *2020 Annual Groundwater Monitoring and Corrective Action* report for the Flue Gas Desulfurization (FGD) Pond at Dominion Energy South Carolina (DESC) Wateree Generating Station in Wateree, Richland County, South Carolina in accordance with 40 CFR Part 257.90 (e). The FGD Pond is a coal combustion residuals (CCR) surface impoundment as defined by the US Environmental Protection Agency (EPA) CCR Rule (40 CFR Part 257.93).

This report presents the following information as required under 40 CFR Part 257.90 (e):

1. A facility map (aerial image) showing the Class 3 landfill and all background (or upgradient) and downgradient monitoring wells, including the well identification numbers, that are part of the groundwater monitoring program for the landfill;
2. 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;
3. A narrative discussion of transitions 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
4. Other information required to be included in the annual report as specified in Parts 257.90 through 257.98 of the CCR Rule.

The following sections present the components of the annual report.

2.0 GROUNDWATER MONITORING WELL SYSTEM

Eight Type II groundwater monitoring wells (designated MW-FGD-01 through MW-FGD-05, and AS-FGD-01 through AS-FGD-03) were installed at Wateree Station FGD Pond in March 2016 and July 2017 to serve as EPA CCR Rule Compliance monitoring wells (MW-FGD-01 through MW-FGD-05) and Alternate Source Demonstration (ASD) monitoring wells (AS-FGD-01 through AS-FGD-03). Five of the Type II groundwater monitoring wells (MW-FGD-01 through MW-FGD-05) were initially installed at the site in March 2016. The three ASD monitoring wells were installed in July 2017 to determine if a source other than the FGD Pond is responsible for statistically significant increases (SSIs) observed for certain EPA CCR Rule Appendix III constituents in groundwater at the compliance monitoring wells based on the results of Detection Monitoring. A site location map is presented as **Figure 1** and a site map showing the locations and designations of the monitoring wells at Wateree Station FGD Pond is presented as **Figure 2**.

The eight Type II groundwater monitoring wells were installed to monitor groundwater quality in the vicinity of the FGD Pond in compliance with the groundwater monitoring requirements of the US EPA CCR Rule (40 CFR Parts 257.93 and 257.94(e)(2)). The locations and designations of the monitoring wells are shown in **Figure 2**. Monitoring wells MW-FGD-01 and AS-FGD-01 serve as background wells to monitor the quality of groundwater in the surficial aquifer up gradient of the area of the FGD Pond. The remaining monitoring wells (MW-FGD-02 through MW-FGD-05, and AS-FGD-02 and AS-FGD-03) serve as down gradient wells to monitor the quality of groundwater down gradient of the FGD Pond. In addition, groundwater quality data from existing background monitoring well MW-AP-01 (**Figure 1**) is used for statistical analysis for Detection Monitoring.

3.0 GROUNDWATER MONITORING

3.1 Groundwater Sampling

In accordance with 40 CFR Part 257.94, the sixth round of Detection Monitoring was conducted on March 10, 2020 and included groundwater sampling from monitoring wells MW-FGD-01 through MW-FGD-05, AS-FGD-02, AS-FGD-03 and MW-AP-01A, as well as sampling of FGD Pond wastewater from FGD Treatment Pond B. One groundwater sample was collected from each of the monitoring wells during the Detection Monitoring event. All groundwater samples collected from the monitoring wells for Detection Monitoring in March 2020 were analyzed by South Carolina Certified laboratories (DESC Central Laboratory (Certification Number 32006) and GEL Laboratories, LLC (Certification Numbers 10120001 and 10120002)) for the constituents listed in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107), as well as lithium. It is noted that the wastewater sample collected from FGD Treatment Pond B in March 2020 was also analyzed for the all the constituents included in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107) and in Appendix IV of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107), except Radium 226 and 228. In addition, all groundwater samples and the wastewater sample from FGD Treatment Pond B were analyzed for total alkalinity, magnesium, potassium and sodium.

In accordance with 40 CFR Part 257.94, the seventh round of Detection Monitoring was conducted on September 15, 2020 and included groundwater sampling from monitoring wells MW-FGD-01 through MW-FGD-05, AS-FGD-02, AS-FGD-03 and MW-AP-01A, as well as sampling of FGD Pond wastewater from FGD Treatment Pond B. One groundwater sample was collected from each of the monitoring wells during the Detection Monitoring event. All groundwater samples collected from the monitoring wells for Detection Monitoring in September 2020 were analyzed by South Carolina Certified laboratories (DESC Central Laboratory (Certification Number 32006) and GEL Laboratories, LLC (Certification Numbers 10120001 and 10120002)) for the constituents listed in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107), as well as lithium. It is noted that the wastewater sample collected from FGD Treatment Pond B in September 2020 was also analyzed for all of the constituents included in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107) and in Appendix IV of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107), except Radium 226 and 228. In addition, all groundwater samples and the wastewater sample

from FGD Treatment Pond B were analyzed for total alkalinity, magnesium, potassium and sodium.

Based on the results of the March 2020 Detection Monitoring results, groundwater was sampled for field and laboratory analysis from monitoring wells MW-FGD-01, MW-FGD-02, MW-FGD-04, AS-FGD-01, AS-FGD-02, AS-FGD-03 and MW-AP-01A in May 2020 to confirm the March 2020 monitoring results and supplement the site water quality database for statistical analysis. All groundwater samples collected from the monitoring wells in May 2020 were analyzed for calcium, as well as magnesium, potassium and sodium. All groundwater samples collected from the monitoring wells during the May 2020 resampling event were analyzed by a South Carolina Certified laboratory (DESC Central Laboratory (Certification Number 32006)).

Based on the results of the September Detection Monitoring results, groundwater was sampled for field and laboratory analysis from monitoring wells MW-FGD-01, MW-FGD-02, MW-FGD-03, MW-FGD-04, MW-FGD-05, AS-FGD-01, AS-FGD-02, AS-FGD-03 and MW-AP-01A in October to confirm the September 2020 monitoring results and supplement the site water quality database for statistical analysis. The groundwater samples collected from monitoring wells MW-AP-01A, MW-FGD-01, AS-FGD-01, AS-FGD-02 and AS-FGD-03 were analyzed for all of the constituents included in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107); the groundwater sample collected from MW-FGD-02 was analyzed for calcium; the groundwater sample collected from monitoring well MW-FGD-03 was analyzed for calcium and sulfate; the groundwater sample collected from monitoring well MW-FGD-04 was analyzed for calcium and chloride; and the groundwater sample collected from MW-FGD-05 was analyzed for calcium, chloride and sulfate. All groundwater samples collected from the monitoring wells in October 2020 were also analyzed for magnesium, potassium, sodium and total alkalinity. All laboratory analyses were conducted by a South Carolina Certified laboratory (DESC Central Laboratory (Certification Number 32006)).

3.2 Results of Field and Laboratory Analyses of Groundwater Samples

The results of the field and laboratory analyses of the groundwater samples collected from the monitoring wells since May 2016 are presented in **Table 1**, and copies of laboratory data sheets for the groundwater samples collected during the Detection Monitoring event conducted in September 2020, as well as the supplemental monitoring conducted in October 2020, are presented in **Appendix A**. The results of the field and laboratory analyses of the groundwater samples collected from the monitoring wells

during the Detection Monitoring event conducted in March 2020, as well as the supplemental monitoring conducted in May 2020, are presented in the Alternate Source Demonstration Report included in **Appendix C** (see Section **3.3**).

Statistical analysis to compare the groundwater quality in the downgradient monitoring wells to that of background water quality for the March 2020 Detection Monitoring event was completed on August 12, 2020 by DESC. The results of the statistical analysis are presented in **Appendix B**. The statistical analysis indicated that the concentrations of calcium in the groundwater samples collected from compliance monitoring wells MW-FGD-02 and MW-FGD-04 showed statistically significant increases over background concentrations. No other statistically significant increases over background levels were observed for the CCR Rule Appendix III constituents in the groundwater samples collected from the monitoring wells during the March 2020 Detection Monitoring event.

Statistical analysis to compare the groundwater quality in the downgradient monitoring wells to that of background water quality for the September 2020 Detection Monitoring event was completed on November 25, 2020 by DESC. The results of the statistical analysis are presented in **Appendix B**. The statistical analysis indicated that the concentration of chloride in the groundwater sample collected from compliance monitoring well MW-FGD-04 showed a statistically significant increase over background concentrations. In addition, the statistical analysis indicated that the concentrations of sulfate in the groundwater samples collected from compliance monitoring wells MW-FGD-03 and MW-FGD-05 showed statistically significant increases over background values. No other statistically significant increases over background levels were observed for the CCR Rule Appendix III constituents in the groundwater samples collected from the monitoring wells during the September 2020 Detection Monitoring event.

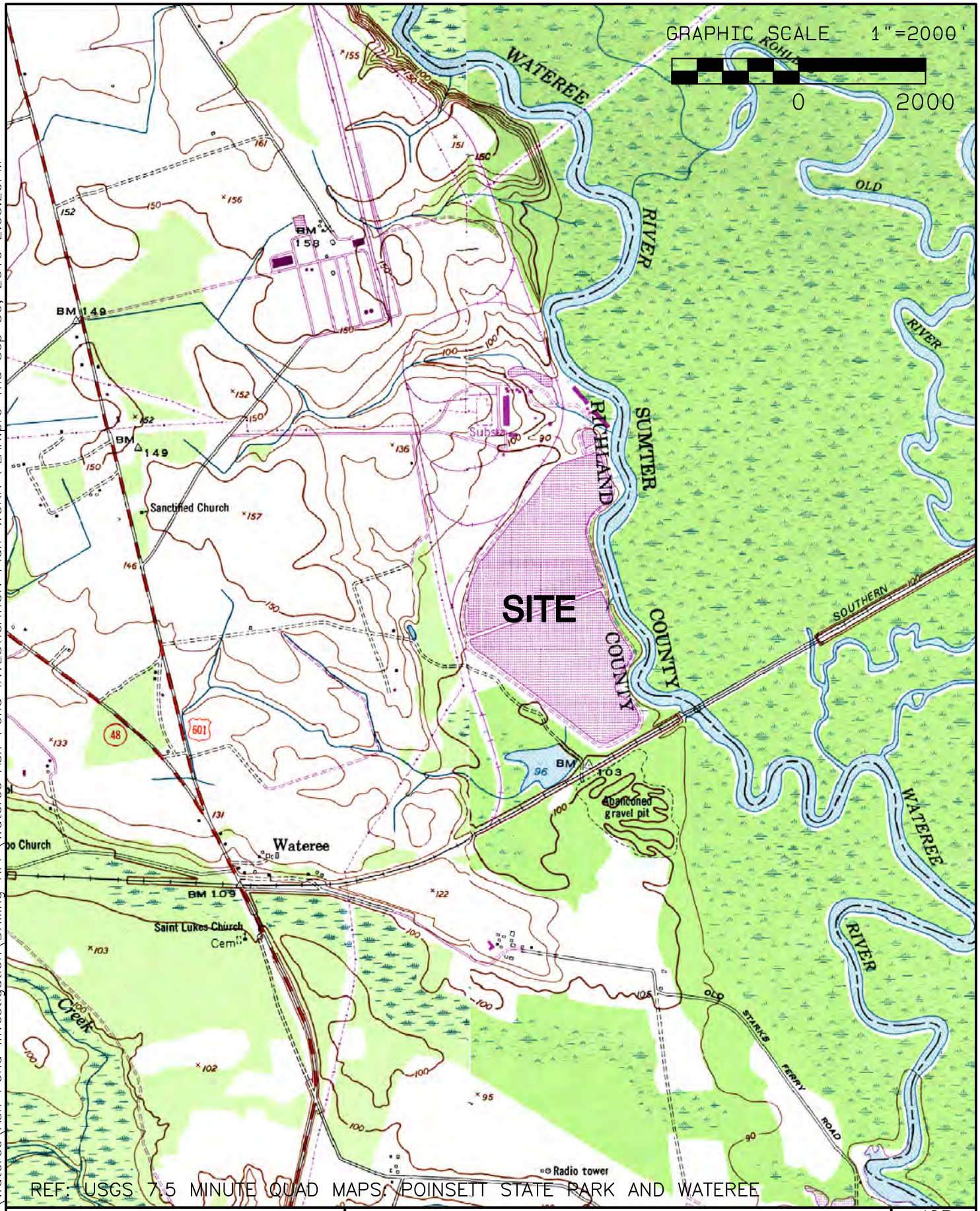
3.3 Alternate Source Demonstration

The results of the statistical analysis of the groundwater quality data from the March 2020 Detection Monitoring event indicated that the concentrations of calcium in the groundwater samples collected from compliance monitoring wells MW-FGD-02 and MW-FGD-04 showed statistically significant increases over background concentrations. Consequently, pursuant to 40 CFR Part 257.94 (e)(2), DESC conducted an Alternate Source Demonstration (ASD) for the statistically significant increases in those constituents relative to background concentrations. The results of the ASD are

presented in the September 2020 *Alternate Source Demonstration Report Wateree Station FGD Pond*, a copy of which is provided in **Appendix C**. The results of the ASD support the position that the SSIs for calcium evident from statistical analysis of groundwater quality data collected during the March 2020 Detection Monitoring event are not due to a release from the FGD Pond. Therefore, no further action was warranted and the FGD Pond remains in Detection Monitoring.

4.0 KEY PROJECT ACTIVITIES FOR 2020

In 2021, an ASD and report of results will be prepared based on the results of the September 2020 Detection Monitoring event and supplemental groundwater monitoring conducted in October 2020. The ASD report will be completed and the report of results included in the plant operating record by April 17, 2020. It is anticipated that the results of the ASD based on the September 2020 Detection Monitoring data will be similar to those based on the previous ASDs. Consequently, it is anticipated that Detection Monitoring will continue in 2021. Two rounds of detection monitoring are anticipated to be completed during March and September 2021 with groundwater samples being collected from monitoring wells MW-FGD-01 through MW-FGD-05, AS-FGD-01, AS-FGD-02, AS-FGD-03 and MW-AP-01A.



REF: USGS 7.5 MINUTE QUAD MAPS: POINSETT STATE PARK AND WATEREE

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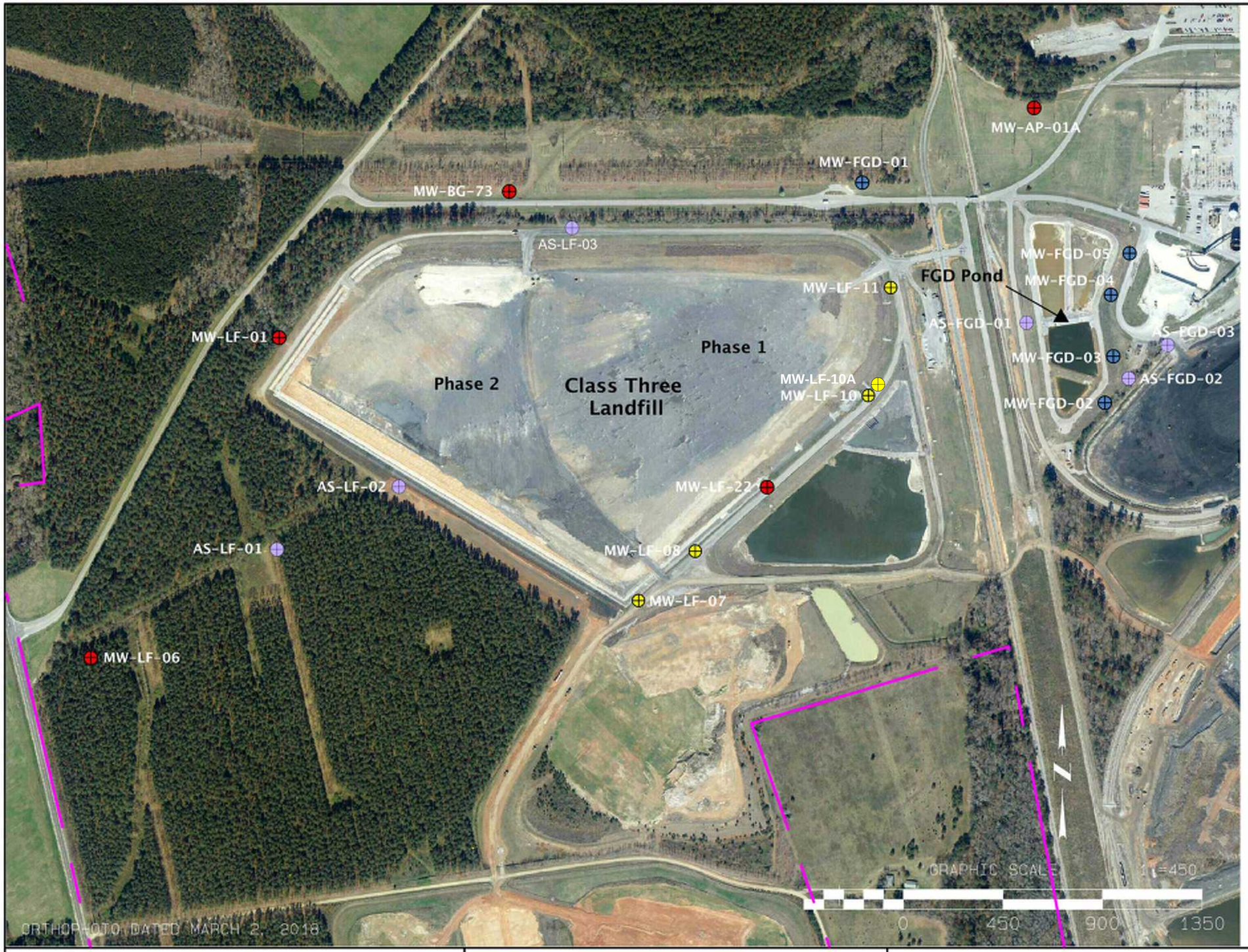
GARRETT & MOORE
Engineering for the Power and Waste Industries

DESC
WATEREE STATION
SITE LOCATION MAP

JOB

FIG
1



EPA CCR Rule Compliance Groundwater Monitoring Wells

Class Three Landfill

- Background and down gradient monitoring well
- Well used for down gradient water quality monitoring
- Alternate Source Demonstration monitoring well

FGD Waste Water Pond

- Background and down gradient monitoring well
- Alternate Source Demonstration monitoring well

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Nautilus Geologic Consulting, PLLC	DESC WATEREE STATION	CCR RULE COMPLIANCE GROUNDWATER MONITORING WELLS FOR LANDFILL AND FGD POND	JOB NUMBER SHEET 2

TABLE 1
RESULTS OF FIELD AND LABORATORY ANALYSES OF GROUNDWATER SAMPLES
EPA CCR RULE BACKGROUND AND COMPLIANCE GROUNDWATER MONITORING WELLS
Wateree Generating Station FGD Pond
Eastover, Richland County, South Carolina

	Groundwater Monitoring Indicator Parameters						40 CFR Part 257 Appendix III Detection Monitoring Parameters								40 CFR Part 257 Appendix IV Assessment Monitoring Constituents															
	Groundwater Elevation ft	ORP mV	DO mg/L	Specific conductance u mhos/cm	Temperature degrees C	Turbidity NTU 10	pH (lab) S.U. BG	pH (field) S.U. BG	Boron ug/L BG	Calcium ug/L BG	Chloride mg/L BG	Fluoride mg/L BG	Sulfate mg/L BG	TDS mg/L BG	Antimony ug/L 6 ug/L	Arsenic ug/L 10 ug/L	Barium ug/L 2000 ug/L	Beryllium ug/L 4 ug/L	Cadmium ug/L 5 ug/L	Chromium ug/L 100 ug/L	Cobalt ug/L 6 ug/L	Lead ug/L 15 ug/L	Lithium ug/L 40 ug/L	Mercury ug/L 2 ug/L	Molybdenum ug/L 100 ug/L	Radium 226 pCi/L 5 pCi/L	Radium 228 pCi/L 5 pCi/L	Radium 226 + 228 pCi/L 5 pCi/L	Selenium ug/L 50 ug/L	Thallium ug/L 2 ug/L
Wateree FGD Pond																													
MW-FGD-01																													
5/11/16	117.30	227.3	4.47	33	21.35	5.5	5.35	3.44	<1,000	359	3.54	<0.033	<0.5	32	<1.00	<1.00	35.3	<1.00	<1.00	<1.00	1.3	<1.00	<2.00	<0.2	<5.00	2.32	1.3	3.62	<5.00	<1.00
7/11/16	115.87	152.1	4.08	49	25.36	0.71	6.12	4.69	<1,000	753	6	<0.033	<0.5	27	<1.00	<1.00	71.4	<1.00	<1.00	<1.00	1.4	<1.00	<2.33	<0.2	<5.00	1.2	1.02	2.22	<5.00	<1.00
9/19/16	115.17	282.1	2.92	47	20.13	2.14	5.72	3.9	<1,000	803	7	<0.033	<0.5	33	<1.00	<1.00	79	<2.00	<1.00	<1.00	1.5	1	<2.33	<0.2	<5.00	1.36	1.68	3.04	<5.00	<1.00
11/15/16	115.02	260	3.07	62	14.59	5.8	5.07	4.57	<1,000	821	7.21	<0.033	<0.5	49	<1.00	<1.00	78.9	<2.00	<1.00	<1.00	1.3	1	2.33	<0.2	<1.00	1.98	2.26	4.24	<5.00	<1.00
1/17/17	116.28	166.2	2.29	53	19.91	2.23	4.66	4.68	<1,000	962	0.76	<0.033	<0.5	29	<1.00	1.2	99.5	<2.00	<1.00	<1.00	1.4	1.2	2.53	<0.2	<1.00	1.5	1.95	3.45	<5.00	<1.00
3/20/17	115.85	288.7	3.07	47	18.11	2.6	5.26	4.35	<1,000	832	5.83	<0.033	<0.5	31	<1.00	<1.00	82.3	<2.00	<1.00	<1.00	1.2	1.1	2.4	<0.2	<1.00	1.42	1.32	2.74	<5.00	<1.00
5/22/17	116.15	289.1	2.89	54	18.61	3.6	4.87	4.33	<1,000	669	4.77	<0.033	<0.5	35	<1.00	<1.00	66	<2.00	<1.00	<1.00	1	1.64	<2.00	<0.2	<1.00	0.572	<1.32	0.572	<5.00	<1.00
7/24/17	116.07	316.6	3.48	66	17.32	4.7	4.86	4.47	<1,000	1,909	5.84	0.0358	<0.5	22	<1.00	<1.00	78.2	<2.00	<1.00	1.2	1.1	1.2	2.13	<0.2	<1.00	1.36	<1.88	1.36	<5.00	<1.00
9/27/17	114.98	312.6	3.58	37	19.34	3.2	4.89	4.51	<1,000	638	5.88	<0.033	<0.5	29																
11/1/17	114.51	260.4	2.51	53	17.99	1.1		4.27		925	7.01		<0.5																	
11/14/17	114.36	310.7	3.43	45	16.26	1.5		4.25		786	6.53		<0.5																	
3/5/18	114.17	304	3.06	57	15.42	1.9	4.81	4.33	<1,000	820	7.12	<0.2	<0.5	47	<1.00	<1.00	84.1	<2.00	<1.00	<1.00	1.2	1.1	2.1	<0.2	<1.00				<5.00	<1.00
9/10/18	114.10	300.1	2.88	63	23.77	2.2	5.62	4.62	23.5	982	7.55	<0.025	<0.129	36	<0.09	<0.292	102	0.45	<0.035	<0.345	1.4	1.3	2.1	<0.071	<0.111				<2.06	<0.071
11/20/18	115.19	8.1	3.53	56	18.08	8.03		4.69	<50.0	<5,000	8.4	<0.1	<1.00	30																
3/6/19	117.23	178.6	4.68	66	9.29	5.4	5.75	4.8	<38.458	1,070	6.79	<0.1	<0.5	41									3.7							
5/1/19	116.31	356.1	4.87	54.8	20	2.8	5.23	4.7		783	5.61		<0.5	35																
8/27/19	114.20	229.2	3.64	60	14.19	2.8	5.22	3.81	<200	855	6.71	<0.10	<0.50	31									2							
11/18/19	113.37	327.4	3.13	46.5	18	4.1		4.86		995	6.98		<0.50	5																
3/10/20	117.65	244.8	3.79	82.9	18.8	5.14	5.11	4.64	<200	2,120	10.8	<0.10	<0.50	52									3.75							
5/26/20	115.66	283.6	3.95	44.4	18.4	0.8		3.89		962																				
9/15/20	115.25	246.9	7.62	46	18.1	1.1	4.92	3.72	<200	815	6.13	<0.10	<0.50	64									1.41							
10/28/20	115.82	194.8	3.31	43.1	18.9	2	5.22	4.46	<500	974	6.82	<0.10	<0.50	54																
MW-FGD-02																														
5/11/16	111.72	158.2	2.11	141	19.53	0.7	6.12	4.49	<1,000	6,350	14.7	0.0604	26.6	91	<1.00	<1.00	45	<1.00	<1.00	<1.00	<1.00	1.1	<2.00	<0.2	<5.00	2.04	2.67	4.71	<5.00	<1.00
7/12/16	103.38	210.6	2.3	79.5	20.6	0.4	5.59	4.19	<1,000	4,510	17	0.051	2.2	66	<1.00	<1.00	124	<1.00	<1.00	<1.00	2.6	1.8	3.67	<0.2	<5.00	1.44	0.946	2.386	<5.00	<1.00
9/20/16	105.34	267.3	2.82	74	21.65	0.7	5.55	4.83	<1,000	3,600	9.36	<0.033	5.85	55	<1.00	<1.00	57.1	<2.00	<1.00	<1.00	1.2	1	2.24	<0.2	<5.00	0.48	<2.03	0.48	<5.00	<1.00
11/16/16	105.14	146	2.55	83	19.94	0.9	5.3	5.34	<1,000	3,460	9.32	<0.033	5.55	60	<1.00	<1.00	68.3	<2.00	<1.00	<1.00	1.1	<1.00	2.26	<0.2	<1.00	0.754	2.05	2.804	<5.00	<1.00
1/18/17	105.08	165.8	3.73	270	20.85	2.5	5.9	5.67	<1,000	27,000	12.22	<0.033	49.25	119	<1.00	1.3	54.4	<2.00	<1.00	<1.00	1	1.4	<2.00	<0.2	<1.00	0.627	<1.96	0.627	18.3	<1.00
3/21/17	104.92	218.1	3.1	66	19.07	4.7	5.71	4.8	<1,000	5,320	7.6	<0.033	5.08	57	<1.00	<1.00	80.2	<2.00	<1.00	1.3	<1.00	<1.00	2.19	<0.2	<1.00	<0.384	<0.598	<0.982	<5.00	<1.00
5/23/17	105.13	170.2	2.33	80	18.72	3.1	5.33	4.86	<1,000	5,503	7.3	<0.033	5.8	56	<1.00	<1.00	36.9	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	<0.351	<1.59	<1.941	<5.00	<1.00
7/26/17	105.12	236.8	2.54	70	18.93	2.1	5.03	4.5	<1,000	2,915	6.99	<0.033	3.57	39	<1.00	<1.00	74.1	<2.00	<1.00	<1.00	<1.00	<1.00	2.49	<0.2	<1.00	0.946	4.49	5.436	<5.00	<1.00
9/27/17	104.97	252.6	2.4	60	21.92	4.1	5.16	4.88	<1,000	3,498	7.06	<0.033	4.56	46																
11/1/17	104.82	243.5	1.91	61	19.68	1.7		4.43		1,920	7.04		3.18																	
11/14/17	104.77	241.3	1.83	59	18.96	1.5		4.56		1,802	6.86		3.6																	
3/5/18	104.54	291.9	1.72	142	18.79	1	5.39	4.97	<1,000	2,850	6.39	<0.2	2.66	45																
9/10/18	104.55	132.7	1.49	96	17.9	1.1	5.77	4.64	<21.9	4,600	6.3	<0.025	3.5	47																
11/21/18	104.86	250.3	7.48	311	20.2	2.99		6.12	51.0	42,000	12	<0.1	68	190																
3/6/19	105.22	129.6	7.23	250	11.29	2.8	6.18	5.88	<38.458	43,500	8.74	<0.1	51.4	161									<2.00							
5/1/19	105.01	354.5	1.89	81.1	21.2	1.4	5.39	5.04		3,910	7.01		6.89	56																
8/28/19	104.64	341.2	1.77	54.4	22.4	2.69	5.08	4.65	<200	1,220	7.15	<0.10	2.08	28									2.3							
3/10/20	106.14	178.2	4.35	297.4	16.9	4.15	6.11	5.94	<200	49,200	6.68	<0.10	50.4	179									<2.00							
5/27/20	105.03	345.6	1.64	69.5	20	3.2		4.37		2,720																				
9/15/20	105.03	22.2	3.48	77	21.08	2	5.22	4.53	43.8	3,450	7.6	<0.10	5.58	86									2.06							
10/27/20	105.03	133	1.69	76.8	22.3	2.1		4.83		4,760																				
MW-FGD-03																														
5/12/16	111.98	126.9	0.79	434	19.26	5.1	6.09	5.9	<1,000	50,400	18.7	0.083	123	291	<1.00	<1.00	76.6	<1.00	<1.00	<1.00	2.5	<1.00	<2.00	<0.2	<5.00	2.45	1.56	4.01	<5.00	<1.00
7/12/16	104.99	-38	0.6	226.7	24.4	53.6	6.6	6.48	<1,000	31,600	8.4	0.142	28	144.5	<1.00	1.5	40	<1.00	<1.00	1.9	<1.00	<1.00	<2.00	<0.2	<5.00	0.496	-0.355	0.141	<5.00	<1.00
9/20/16	105.98	130.1	1.27	130	22.63	8.9	6.46	5.89	<1,000	16,200	9.63	0.07	11.2	82	<1.00	1	29.4	<2.00	<1.00	1	<1.00	<1.00	<2.00	<0.2	<5.00	0.716	<1.50	0.716	<5.00	<1.00
11/16/16	105.77	98	0.63	136	18.39	9.5	6.25	6.35	<1,000	14,600	8.03	0.13	6.27	75	<1.00	<1.00	26	<2.00	<1.00	1	<1.00	<1.00	<2.00	<0.2	<1.00	0.811	2.51	3.321	<5.00	<1.00
1/18/17	105.77	161	2.66	138	22.61	8.6	6.09	5.73	<1,000	12,800	8.76	0.0662	8.91	68	<1.00	1.4	26.4	<2.00	<1.00	1	<1.00	<1.00	<2.00	<0.2	<1.00	0.746	4.55	5.296	<5.00	<1.00
3/21/17	105.65	182.1	2.62	168	22.88	9	5.58	5.77	<1,000	16,400	8.73	0.0711	35.3	111	<1.00	<1.00	44.5	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.371	<0.457	0.371	<5.00	<1.00
5/23/17	105.87	121.6	2.81	140	19.77	8.23	6.22	5.54	<1,000	14,300	7.9	0.0622	22	95	<1.00	<1.00	34.9	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	<0.299	<1.25	<1.549	<5.00	<1.00
7/26/17	105.81	201.8	2.82	110	19.38	91.4	6.02	5.27	<1,000	12,920	8.49	0.0499	16.97	75	<1.00	<1.00	42	<2.00	<1.00	2.3	<1.00	1.1	<2.00	<0.2	<1.00	<0.348	4.65	4.65	<5.00	<1.00
9/27/17	105.61	208	2.23	81	25.77	9	5.91	5.55	<1,000	8,778	7.51	<0.033	4.28	61																
11/1/17	105.44	190.4	2.39	85	21.41	8.4		5.3		9,200	7.24		3.46																	
11/14/17	105.39	235.1	2.45	94	15.87	8.4		5.67		12,290	7.14		5.25																	
3/5/18	105.20	222	2.5	150	19.82	8.4	6.37	5.74	<1,000	8,270	6.88	<0.2	1.89	57																
9/10/18	105.21	174.1	4.62	93	21.31	6.9	6.21	5.41	<21.9	7,190	6.69	<0.025	2.02	165																
11/21/18	105.48	149.9	8.21	94	22.11	7.23		6.13	<50.0	9,800	7.7	<0.1	4.5	47																
3/6/19	105.89	149.1	4.37	278	11.59	10	5.95	5.43	<38.458	17,900	8.78	<0.1	75.4	131									<2.00							
5/1/19	105.86	270.6	3.21	253.7	26.4	8.6	5.92	5.5		14,600	8.99		69.7	156																
8/28/19	105.22	280.6	2.51	78.1	24.1	8.95	5.78	5.34	<200	5,210	7	<0.10	5.92	51									0.81 J							
11/19/19	105.06	310.5	3.2	59	17	8.9		5.4		4,490	6.51		2.35	46																
3/10/20	105.90	199.1	2.67	6.79	20.1	9.99	5.58	5.45	<200	44,300	<0.50	7.66	269	421									0.77 J							
9/15/20	105.75	-3.5	3.72	282	21.83	9.2	5.48	4.75	<200	14,500	8.48	<0.10	65.3	166									1.09							
10/27/20	105.76	148	286	322.7	23.3	9.4		5.16		16,800			118																	
MW-FGD-04																														
5/12/16	112.54	178.5	1.99	62	19.36	1.4	5.05	4.61	<1,000	3,120	9.96	0.0644	14.4	48	<1.00	<1.00	95.3	<1.00	<1.00	<1.00	<1.00	1.3	<2.00	<0.2	8.1	1.93	3.79	5.72	<5.00	<1.00
7/12/16	107.48	252.5	0.51	51.7	21.3	1.5	5.37	3.75	<1,000	2,820	8.9	0.054	6.2	36	<1.00	<1.00	91.2	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<5.00	0.969	1.9	2.869	<5.00	<1.00
9/20/16	107.54	320	1.83	54	22.41	0.7	5.14	4.33	<1,000	2,160	6.13	<0.033	5.41	25	<1.00	<1.00	70.4	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<5.00	0.674	<1.91	0.674	<5.00	<1.00
11/16/16	107.28	210	2.86	63	20.03	1.1	4.66	4.87	<1,000	1,730	6.55	<0.033	3.72	33	<1.00	<1.00	62.1	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.476	<1.29	0.476	<5.00	<1.00
1/18/17	107.51	254	1.82	59	20.09	2.4	4.65	4.82	<1,000	2,540	8.08	0.0479	4.7	28	<1.00	1.3	74.6	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.35	1.72	2.07	<5.00	<1.00
3/21/17	107.36	296.9	1.39	51	19.16	2.9	5.55	4.2	<1,000	2,830	7.35	0.073	3.65	39	<1.00	<1.00	79.6	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.661	2.02	2.681	<5.00	<1.00
5/23/17	107.68	229.8	1.24	61	18.44	1.8	4.55	4.04	<1,000	2,400	8.7	0.0363	4.2	42	<1.00	<1.00	83.3	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.398	2.02	2.418	<5.00	<1.00
7/26/17	107.51	253.7	1.42	63	19.01	2.1	4.71	4.18	<1,000	2,507	6.9	0.0421	4.75	29	<1.00	<1.00	75.4	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.609	<1.86	0.609	<5.00	<1.00
9/28/17	107.10	263.2	1.16	51	20.51	1.8	4.68	4.36	<1,000	1,958	6.09	<0.033	4.03	33																
11/1/17	106.89	260	1.11	52	19.97	4.3		4.11		1,450	5.89		3.01																	
11/14/17	106.84	283.1	1.18	55	19.34	4.1		4.31		3,149	6.4		3.75																	
3/5/18	106.71	293	0.99	131	17.79	1.5	4.87	4.5	<1,000	913	5.73	<0.2	2.23	33																
9/10/18	106.76	318.1	0.76	54	21.36	2.3	4.88	3.91	<21.9	1,390	7.44	<0.025	2.06	46																
3/6/19	107.80	180.8	1.36	60	12.83	4	4.76	4.52	<38.458	2,560	4.89	<0.1	3.96	24									<2.00							
5/1/19	107.69	379.4	2.14	62.3	21	1.4		4.51		2,000																				
8/28/19	106.69	241.7	0.85	53	17.14	2.7	4.72	3.78	<200	1,980	5.52	<0.10	5	36									1.10 J							
11/19/19	106.24	335.9	1.89	40.3	21.1	2.01		4.62		1,280	5.07		2.1	31																
3/10/20	107.94	238.4	0.83	133.3	19	4.39	4.96	4.74	<200	5,460	18.8	<0.10	10	69									1.045 J							
5/27/20	107.29	349.7	0.93	65.7	20.8	5.4		4.08		3,520																				
9/15/20	107.33	42.5	3.18	81	22.95	4.6	4.52	3.79	<200	4,230	12.3	<0.10	4.61	97									1.22							
10/28/20	107.35	168.2	1.13	80.6	22.5	1.9		4.27		5,010	15.7																			

	Groundwater Monitoring Indicator Parameters						40 CFR Part 257 Appendix III Detection Monitoring Parameters								40 CFR Part 257 Appendix IV Assessment Monitoring Constituents													
	Groundwater Elevation ft	ORP mV	DO mg/L	Specific conductance u mhos/cm	Temperature degrees C	Turbidity NTU 10	pH (lab) S.U. BG	pH (field) S.U. BG	Boron ug/L BG	Calcium ug/L BG	Chloride mg/L BG	Fluoride mg/L BG	Sulfate mg/L BG	TDS mg/L BG	Antimony ug/L 6 ug/L	Arsenic ug/L 10 ug/L	Barium ug/L 2000 ug/L	Beryllium ug/L 4 ug/L	Cadmium ug/L 5 ug/L	Chromium ug/L 100 ug/L	Cobalt ug/L 6 ug/L	Lead ug/L 15 ug/L	Lithium ug/L 40 ug/L	Mercury ug/L 2 ug/L	Molybdenum ug/L 100 ug/L	Radium 226 pCi/L 5 pCi/L	Radium 228 pCi/L 5 pCi/L	Radium 226 + 228 pCi/L 5 pCi/L	Selenium ug/L 50 ug/L	Thallium ug/L 2 ug/L
MW-FGD-05																													
5/12/16	112.58	185	0.66	85	20.14	1.1	4.9	4.55	<1,000	2,100	10.4	0.0852	4.6	45	<1.00	<1.00	101	<1.00	<1.00	<1.00	2	<1.00	2.26	<0.2	<5.00	1.89	1.71	3.6	<5.00	<1.00
7/11/16	108.32	205	0.25	60.8	23.6	1.6	4.97	4.25	<1,000	652	9.7	0.0485	0.56	43	<1.00	<1.00	117	<1.00	<1.00	<1.00	1.6	<1.00	2.13	<0.2	<5.00	1.82	4.72	6.54	<5.00	<1.00
9/19/16	108.13	215.1	0.21	74	23.76	0.8	5.25	4.57	<1,000	686	10.4	<0.033	<0.5	45	<1.00	<1.00	115	<2.00	<1.00	<1.00	1.4	1.9	2.56	0.21	<5.00	0.863	<1.68	0.863	<5.00	<1.00
11/16/16	107.81	209	0.43	104	24.94	1.4	4.97	5.1	<1,000	2,610	12	<0.033	0.977	51	<1.00	<1.00	106	<2.00	<1.00	<1.00	1.4	<1.00	2.33	0.26	<1.00	1.66	2.95	4.61	<5.00	<1.00
1/18/17	108.34	193	0.53	86	20.36	5.2	4.99	4.92	<1,000	1,460	12.99	0.0359	1.48	45	<1.00	1.1	127	<2.00	<1.00	<1.00	1.6	1.5	2.21	<0.2	<1.00	1.66	3.91	5.57	<5.00	<1.00
3/21/17	108.00	277.3	1.03	73	19.13	4.8	5.68	4.33	<1,000	822	13.3	0.036	<0.5	48	<1.00	<1.00	101	<2.00	<1.00	<1.00	1.3	1.6	2.09	0.2	<1.00	1.15	2.95	4.1	<5.00	<1.00
5/23/17	108.44	224.7	1.18	86	18.04	1.7	5.09	4.5	<1,000	4,016	12	<0.033	1.97	52	<1.00	<1.00	89.4	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	0.51	<1.00	0.744	1.94	2.684	<5.00	<1.00
7/26/17	108.21	90.9	1.11	180	19.86	3.1	5.92	5.48	<1,000	23,470	12.16	0.0406	16.06	98	<1.00	<1.00	74.5	<2.00	<1.00	1.4	<1.00	1	<2.00	0.385	<1.00	0.46	<2.12	0.46	<5.00	<1.00
9/28/17	107.75	319.4	1.78	85	21.73	5.1	5.21	4.99	<1,000	5,429	13.9	<0.033	2.92	53																
11/1/17	107.44	137	0.75	94	19.88	5		4.73		1,380	13.9		<0.5																	
11/14/17	107.39	304.4	1.32	75	19.28	4.2		4.46		1,151	13.6		<0.5																	
3/5/18	107.41	302	1.2	124	18.16	5.5	5.19	4.77	<1,000	1,030	14.8	<0.2	<0.5	60																
9/10/18	107.54	191.9	1.27	115	22.34	1.6		4.54	<21.9	1,260	15.1	<0.025	0.58	61																
11/21/18	108.07	305	1.5	262	20.73	1.49		5.99	<50.0	30,000	13	<0.1	26	130																
3/6/19	108.67	132.7	4.51	359	9.65	8.4	6.57	6.17	<38.458	86,100	6.58	<0.1	78.4	270									<2.00							
5/1/19	108.48	547	1.55	208.1	21.9	8.1	5.45	5.44		1,300			1.53	70																
8/28/19	107.24	228.4	1.58	92	17.54	1.8	5.11	4.09	<200	621	15.3	<0.10	4.78	34									1.90 J							
11/19/19	106.84	293.8	1.4	122.4	17.9	6.9		5.68		4,820	13.6		20.5	90																
3/10/20	109.01	172	2.72	516.6	19.5	7.46	6.32	6.48	<200	85,000	7.02	<0.10	57.7	265									<2.00							
9/15/20	108.17	155.2	2.48	146	23.52	1.4	5.37	4.27	<200	6,370	14.8	<0.10	15.8	147									2.1							
	108.25	132.5	1.41	256.9	22.7	2.7		5.85		40,400	10.8		43.7																	
AS-FGD-01																														
7/25/17	110.45	182.5	5.23	56	19.11	6.9	5.1	4.65	<1,000	1,067	6.33	0.0485	<0.5	42	<1.00	<1.00	91.4	<2.00	<1.00	1	2.6	<1.00	3.43	<0.2	<1.00	1.23	<2.08	1.23	<5.00	<1.00
9/27/17	109.98	264.5	3.76	45	21.36	7.1		4.4	<1,000	921																				
10/11/17	109.84	305.4	3.67	47	21.22	3.1		4.34	<1,000	705	6.54	<0.5	<0.5	28	<1.00	<1.00	82.1	<2.00	<1.00	<1.00	2.2	<1.00	2.9	<0.2	<1.00				<5.00	<1.00
11/1/17	109.59	221.2	4.09	48	18.61	2.8		4.47	<1,000	824	6.65	<0.033	<0.5	96	<1.00	<1.00	90.6	<2.00	<1.00	1	2.2	<1.00	4	<0.2	<1.00				<5.00	<1.00
11/14/17	109.56	299	4.61	47	18.96	3.6		4.52	<1,000	743	6.46		<0.5	45.5	<1.00	<1.00	88.5	<2.00	<1.00	<1.00	2.2	1	<2.00	<0.2	<1.00				<5.00	<1.00
3/5/18	109.32	275	4.37	125	18.24	3.1	5.22	4.69	<1,000	732	6.62	0.2	<0.5	49																
9/11/18	109.39																													
11/20/18	109.82	-32.2	5.14	53	21.59	4.46		5.93	<50.0	<5,000	7.5	<0.1	11	31	<20.0	<15.0	93	<5.00	<5.00	<10.0	<25.0	<10.0		<0.2	<40.0				<20.0	<50.0
3/6/19	110.99	187.7	5.7	58	13.57	3.4	4.81	4.4	<38.458	844	6.96	<0.1	<0.5	20									2.8							
5/1/19	110.83	223.4	4.81	49	17.22	1.2	5.17	4.38		783	6.96		<0.5	42																
8/27/19	109.45	210	4.57	63	17.18	3.8	4.94	3.84	<200	778	7.19	<0.10	<0.50	472									3.2							
11/19/19	108.65	332.7	3.81	46.4	21	4.06		4.69		778	6.7		<0.50	38																
3/10/20	110.91	268	5.46	61	19.8	1.89	5.28	4.49	<200	865	7.3	<0.10	<0.50	48																
5/27/20	110.32	335.6	5.61	56.9	19.7	4.8		4.14		841																				
9/15/20	110.28	70.8	6.63	58	23.09	0.6	4.82	4.28	<200	674	7.49	<0.10	<0.50	72									2.51							
10/26/20	110.42	244	6.98	52.4	22.4	0.5	4.59	4.38	<500	862	7.37	<0.10	<0.50	46																
AS-FGD-02																														
7/25/17	104.65	171.9	1.48	102	19.51	7.4	5.31	4.96	<1,000	3,199	9.34	0.0664	9.01	56	<1.00	<1.00	94.5	<2.00	<1.00	1.3	10.9	<1.00	4.07	<0.2	<1.00	1.01	3.04	4.05	<5.00	<1.00
9/27/17	104.52	223.3	1.4	81	20.6	8.4		4.84	<1,000	2,974																				
10/11/17	104.46	244.2	1.65	89	20.91	1.6		4.83	<1,000	2,780	10.1	0.0379	7.27	44	<1.00	<1.00	86.2	<2.00	<1.00	<1.00	6.5	<1.00	2.4	<0.2	<1.00				<5.00	<1.00
11/1/17	104.39	228.3	1.47	74	18.24	6		4.57	<1,000	2,000	9.04		6.24	99	<1.00	<1.00	112	<2.00	<1.00	<1.00	7.3	1.8	4.2	<0.2	<1.00				<5.00	<1.00
11/14/17	104.38	302.4	2.02	69	16.63	8.2		4.46	<1,000	1,922	8.6		6.34	43	<1.00	<1.00	113	<2.00	<1.00	<1.00	7.3	2.1		<0.2	<1.00				<5.00	<1.00
3/6/18	104.12	364.3	3.26	71	15.22	2.6	4.89	4.57	<1,000	1,470	7.64	<0.2	5.97	47																
9/11/18	104.18	317.3	9.69	69	21.94	2.6	5.09	3.8	<21.9	1,170	7.21	<0.025	6.08	44	<0.09	<0.292	106	0.86	<0.035	0.345	6.3	2.2	3.1	<0.071	0.2				<2.06	0.087
3/6/19	104.63	157.7	2.77	89	13.12	3.6	5.3	5	<38.458	2,770	8.88	<0.1	9.93	46									3.1							
8/28/19	104.28	336.7	2.31	66.1	22.6	4.67	4.92	4.55	<200	1,370	7.88	<0.10	5.73	482									3.1							
3/10/20	104.65	202.5	3.07	139.4	18.6	5.46	6.1	4.96	<200	7,460	7.97	<0.10	32.4	71									2.3							
5/27/20	104.47	324.7	2.79	79.5	20.1	4.4		4.47		2,340																				
9/15/20	104.62	44.9	4.15	104	22.42	3.7	5.21	4.71	47.0	4,950	8.43	<0.10	17.3	86									2.28							
10/27/20	104.57	137	2.05	76.6	22.7	3.9	5.54	5.01	<500	3,390	8.93	<0.10	9.08	76																
AS-FGD-03																														
7/25/17	103.58	207.1	1.26	65	21.46	2.1	4.75	4.19	<1,000	2,341	5.93	0.0428	5.99	34	<1.00	<1.00	57.7	<2.00	<1.00	1	1	<1.00	2	<0.2	<1.00	0.709	<2.91	3.619	<1.00	<1.00
9/27/17	104.42	268.2	0.76	57	24.18	5.9		4.26	<1,000	2,095																				
10/11/17	104.37	271.5	0.79	61	23.97	0.9		4.22	<1,000	2,080	6.07		5.51	29	<1.00	<1.00	51.8	<2.00	<1.00	<1.00	<1.00	1.1	<2.00	<0.2	<1.00				<5.00	<1.00
11/1/17	104.29	264.1	0.84	63	22.37	1.2		4.13	<1,000	2,080	6.15	<0.033	5.66	139	<1.00	<1.00	59.3	<2.00	<1.00	<1.00	<1.00	1.1	<2.00	<0.2	<1.00				<5.00	<1.00
11/14/17	104.25	297.5	0.87	59	21.91	2.6		4.43	<1,000	2,076	6.02		5.83	36	<1.00	<1.00	55.4	<2.00	<1.00	<1.00	<1.00	1.1		<0.2	<1.00				<5.00	<1.00
3/6/18	104.02	398.7	1.96	63	16.12	0.4	4.62	4.59	<1,000	2,200	6	<0.2	6.08	29																
9/11/18	104.16	311.5	5.69	58	25.01	0.8	5.12	3.7	<21.9	1,650	6.37	<0.025	4.78	54	<0.09	<0.292	49	<0.285	<0.035	<0.345	0.34	1	1.4	<0.071	<0.111				<2.06	<0.071
3/6/19	104.62	188.2	0.54	62	12.94	2.1	4.78	4.32	<38.458	2,000	7.48	<0.1	5.34	28									<2.00							
8/28/19	104.20	215.3	0.95	57	19.78	3.1	4.83	3.96	<200	1,520	6.9	<0.10	3.95	24									1.40 J							
3/10/20	104.73	184.3	0.65	62.2	19.5	4.67	4.78	4.47	<200	2,060	7.64	<0.10	4.77	23									1.28 J							
5/27/20	104.54	355.1	0.66	56.3	21	4.4		4.13		1,820																				
9/15/20	104.60	-33	4.7	56	25.91	0.9	4.68	4.01	<200	1,610	7.5	<0.10	2.82	63									1.41							
10/26/20	104.55	107.6	0.01	50.6	26	1.7	4.66	4.5	<500	1,540	7.87	<0.10	2.79	51.5																
FGD Treatment Pond 1A																														
6/26/17									165,300	2,884,000					<10.0	<10.0	449	<2.00	153	<10.0	177	<10.0	185	0.48	41.2				301	<10.0
FGD Treatment Pond B																														
6/26/17									152,100	2,635,000					<10.0	<10.0	387	<2.00	88.8	<10.0	131	<10.0	184	<0.2	41.1				204	<10.0
10/10/17									193,000	2,100,000	8,606	28	2,276	16,855	<10.0	<10.0	278	<10.0	112	<10.0	298	<10.0	300	0.31	55.5				363	<10.0
11/14/17									133,500	2,100,000	7,177		1,961	13,600	<2.00	6.2	179	<8.00	85.3	<2.00	182	<4.00	345	<0.2	53.8				255	<4.00
11/20/18									180,000	2,200,000	8,500	<0.1	2,100	17,000	<20.0	<75.0	370	<5.00	160	<10.0	260	<10.0		2.7	<40.0				460	<50.0
3/6/19							7.23		90,200	1,651,000	5,243	14.5	1,732	11,960	<2.00	4.1	234	<2.00	93	<2.00	172	<2.00	182	<0.2	32.1				224	1.9
8/28/19							7.13		139,000	1,984,000	6,375	17.5	1,873	43	1.90 J	6.6	328	1.70 J	83.8	<5.0	136	<5.0	256	0.4	42.7				158	2.10 J
3/9/20							8.67		30,800	175,000	1,326	3.9	1,180	4,749	0.72 J	3.05	42.2	0.27 J	10.5	0.60 J	14.7	<1.0	71.1	1.6	25				27.9	0.48 J
9/15/20							7.38		98,700	1,300,000	4,035	12.5	2,137	12,744	0.763	5.74	116	<2.00	14.3	0.585	40.8	<5.0	152	<0.2	33.3				124	<5.00

Notes: Monitoring well locations highlighted in green are background monitoring locations.

Monitoring well locations highlighted in orange are down gradient compliance monitoring locations.

BG = Background; For those constituents for which a Maximum Contaminant Level (MCL) has not been established by the US EPA, detected concentrations in groundwater at compliance monitoring well locations are compared to concentrations detected in groundwater at background locations to determine if a statisticaly significant increase in concentrations above background levels is evident from the data.

Monitoring well locations highlited in yellow are down-gradient Alternate Source Determination wells.

Nautilus Geologic Consulting, PLLC

APPENDIX A

Results of Laboratory Analyses of Groundwater Samples

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11110**

Wateree Well FGD-01 CCR TDS

Date & Time Sampled: September 15, 2020 08:19
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.13	0.50	mg/L	9/17/20 20:51	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/17/20 20:51	BB
pH by SM4500HB(2011)	4.92		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	9/17/20 20:51	BB
Total Alkalinity by SM2320B	3.20	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	64	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11111**

Wateree Well FGD-02 CCR TDS

Date & Time Sampled: September 15, 2020 09:07
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.60	0.50	mg/L	9/17/20 17:13	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/17/20 17:13	BB
pH by SM4500HB(2011)	5.22		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	5.58	0.50	mg/L	9/17/20 17:13	BB
Total Alkalinity by SM2320B	4.80	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	86	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11112**

Wateree Well FGD-03 CCR TDS

Date & Time Sampled: September 15, 2020 09:59
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.48	0.50	mg/L	9/17/20 20:51	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/17/20 20:51	BB
pH by SM4500HB(2011)	5.48		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	65.3	0.50	mg/L	9/17/20 20:51	BB
Total Alkalinity by SM2320B	11.2	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	166	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11113**

Wateree Well FGD-04 CCR TDS

Date & Time Sampled: September 15, 2020 10:52
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	12.3	0.50	mg/L	9/17/20 20:51	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/17/20 20:51	BB
pH by SM4500HB(2011)	4.52		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	4.61	0.50	mg/L	9/17/20 20:51	BB
Total Alkalinity by SM2320B	Less than	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	97	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11114**

Wateree Well FGD-05 CCR TDS

Date & Time Sampled: September 15, 2020 11:36
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	14.8	0.50	mg/L	9/17/20 20:51	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/17/20 20:51	BB
pH by SM4500HB(2011)	5.37		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	15.8	0.50	mg/L	9/17/20 20:51	BB
Total Alkalinity by SM2320B	27.0	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	147	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11115**

Wateree Well FGD AS1 CCR TDS

Date & Time Sampled: September 15, 2020 12:30
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDAS1TDS

FGD-01 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.49	0.50	mg/L	9/17/20 20:51	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/17/20 20:51	BB
pH by SM4500HB(2011)	4.82		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	9/17/20 20:51	BB
Total Alkalinity by SM2320B	Less than	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	72	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11116**

Wateree Well FGD AS2 CCR TDS

Date & Time Sampled: September 15, 2020 13:13
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDAS2TDS

FGD-01 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.43	0.50	mg/L	9/18/20 18:21	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/18/20 18:21	BB
pH by SM4500HB(2011)	5.21		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	17.3	0.50	mg/L	9/18/20 18:21	BB
Total Alkalinity by SM2320B	6.40	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	86	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11117**

Wateree Well FGD AS3 CCR TDS

Date & Time Sampled: September 15, 2020 13:58
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDAS3TDS

FGD-01 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.50	0.50	mg/L	9/18/20 18:21	BB
Fluoride by IC EPA 300.0	Less than	0.10	mg/L	9/18/20 18:21	BB
pH by SM4500HB(2011)	4.68		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	2.82	0.50	mg/L	9/18/20 18:21	BB
Total Alkalinity by SM2320B	Less than	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	63	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11118**

Wateree FGD B Pond CCR TDS

Date & Time Sampled: September 15, 2020 10:13
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDBPONDAN

Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	4035	37.5	mg/L	9/18/20 18:21	BB
Fluoride by IC EPA 300.0	12.5	7.50	mg/L	9/18/20 18:21	BB
pH by SM4500HB(2011)	7.38		S.U.	9/16/20 15:12	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	2137	37.5	mg/L	9/18/20 18:21	BB
Total Alkalinity by SM2320B	52.4	0.50	mg/L	9/17/20 20:35	MS
Total Dissolved Solid-SM2540C	12744	2.0	mg/L	9/19/20 14:34	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11119**

Wateree Well FGD-01 TM CCR Metals

Date & Time Sampled: September 15, 2020 08:19
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD01TM

FGD-01 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	815	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	1.41	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	852	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	977	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	3300	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11120**

Wateree Well FGD-02 TM CCR Metals

Date & Time Sampled: September 15, 2020 09:07
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD02TM

FGD-02 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	43.8	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	3450	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	2.06	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	980	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	1490	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	6460	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11121**

Wateree Well FGD-03 TM CCR Metals

Date & Time Sampled: September 15, 2020 09:59
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD03TM

FGD-03 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	14500	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	1.09	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	5750	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	2860	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	13400	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11122**

Wateree Well FGD-04 TM CCR Metals

Date & Time Sampled: September 15, 2020 10:52
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD04TM

FGD-04 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	4230	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	1.22	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	753	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	1820	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	3590	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11123**

Wateree Well FGD-05 TM CCR Metals

Date & Time Sampled: September 15, 2020 11:36
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGD05TM

FGD-05 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	6370	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	2.10	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	3750	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	2140	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	7620	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11124**

Wateree Well FGD-AS-1 TM CCR Metals

Date & Time Sampled: September 15, 2020 12:30
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDAS1TM

FGD-05 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	674	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	2.51	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	849	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	1180	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	3900	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

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Fax: (803) 217-9911

January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11125**

Wateree Well FGD-AS-2 TM CCR Metals

Date & Time Sampled: September 15, 2020 13:13
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDAS2TM

FGD-05 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	47.0	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	4950	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	2.28	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	2490	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	1930	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	5960	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11126**

Wateree Well FGD-AS-3 TM CCR Metals

Date & Time Sampled: September 15, 2020 13:58
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDAS3TM

FGD-05 Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	200	ppb	9/16/20 16:22	CHG
Calcium EPA 200.7	1610	500	ppb	9/16/20 16:22	CHG
Lithium (CWA) 200.7	1.41	2.0	ppb	9/16/20 16:22	CHG
Magnesium EPA 200.7	633	50	ppb	9/16/20 16:22	CHG
Potassium EPA 200.7	1270	1000	ppb	9/16/20 16:22	CHG
Sodium EPA 200.7	3600	1000	ppb	9/16/20 16:22	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

Dominion Energy

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January 07, 2021

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11127**

Wateree FGD B Pond CCR Metals

Date & Time Sampled: September 15, 2020 10:13
Date & Time Submitted: September 16, 2020 07:09
Collected by: A.HILL Location Code: WAFGDBPONDHM

Login Record File: 200916002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	0.763	1.0	ppb	10/1/20 11:41	CHG
Arsenic by ICP_MS 200.8	5.74	5.0	ppb	10/1/20 13:48	CHG
Barium by ICP-OES 200.7	116	10.0	ppb	9/17/20 08:09	CHG
Beryllium EPA 200.7	Less than	2.0	ppb	9/17/20 08:09	CHG
Boron - EPA 200.7	98700	200	ppb	9/17/20 08:09	CHG
Cadmium by ICP_MS EPA 200.8	14.3	1.0	ppb	10/1/20 11:41	CHG
Calcium EPA 200.7	1300000	5000	ppb	9/17/20 08:09	CHG
Chromium by ICP_MS 200.8	0.585	1.0	ppb	10/1/20 11:41	CHG
Cobalt by ICP_MS 200.8	40.8	5.0	ppb	10/1/20 13:48	CHG
Lead by ICP-MS 200.8	Less than	5.0	ppb	10/1/20 13:48	CHG
Lithium (CWA) 200.7	152	2.0	ppb	9/17/20 08:09	CHG
Magnesium EPA 200.7	970000	50	ppb	9/17/20 08:09	CHG
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	9/17/20 14:10	PRC
Molybdenum - EPA 200.8	33.3	1.0	ppb	10/1/20 11:41	CHG
Potassium EPA 200.7	37200	1000	ppb	9/17/20 08:09	CHG
Selenium by ICP-MS 200.8	124	25.0	ppb	10/1/20 13:48	CHG
Sodium EPA 200.7	145000	1000	ppb	9/17/20 08:09	CHG
Thallium by ICP-MS 200.8	Less than	5.0	ppb	10/1/20 13:48	CHG

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

Dominion Energy

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November 02, 2020

REPORT TO:

Rashida Marlowe

Rocky Archer

Sample ID: **BA11754**

Wateree Well FGD-02 CCR TDS

Date & Time Sampled: October 27, 2020 14:32
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Total Alkalinity by SM2320B	3.00	0.50	0.50	mg/L	11/1/20 18:16	MS

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Manuel Serratos

Dominion Energy

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November 03, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11755**

Wateree Well FGD AS2 CCR TDS

Date & Time Sampled: October 27, 2020 15:16
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGDAS2TDS

FGD-01 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.93	0.50	0.038	mg/L	10/29/20 20:29	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	10/29/20 20:29	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.54			S.U.	11/2/20 19:00	MS
Sulfates by IC EPA 300.0	9.08	0.50	0.063	mg/L	10/29/20 20:29	BB
Total Alkalinity by SM2320B	16.00	0.50	0.50	mg/L	11/1/20 18:16	MS
Total Dissolved Solid-SM2540C	76	2.0	2.0	mg/L	10/30/20 08:51	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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November 03, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11756**

Wateree Well FGD-03 CCR TDS

Date & Time Sampled: October 27, 2020 15:52
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Sulfates by IC EPA 300.0	118	1.00	0.126	mg/L	10/29/20 20:29	BB
Total Alkalinity by SM2320B	4.00	0.50	0.50	mg/L	11/1/20 18:16	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

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November 03, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11757**

Wateree Well Field Blank 3 CCR TDS

Date & Time Sampled: October 28, 2020 07:50
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFBTDS

Login Record File: 201028005

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	Less than PQL	0.50	0.038	mg/L	10/29/20 20:29	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	10/29/20 20:29	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.98			S.U.	11/2/20 19:00	MS
Sulfates by IC EPA 300.0	Less than PQL	0.50	0.063	mg/L	10/29/20 20:29	BB
Total Alkalinity by SM2320B	Less than PQL	0.50	0.50	mg/L	11/1/20 18:16	MS
Total Dissolved Solid-SM2540C	21	2.0	2.0	mg/L	10/30/20 08:51	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

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November 03, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11758**

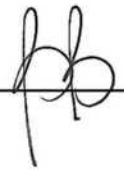
Wateree Well FGD-01 CCR TDS

Date & Time Sampled: October 28, 2020 10:20
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.82	0.50	0.038	mg/L	10/29/20 20:29	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	10/29/20 20:29	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.22			S.U.	11/2/20 19:00	MS
Sulfates by IC EPA 300.0	Less than PQL	0.50	0.063	mg/L	10/29/20 20:29	BB
Total Alkalinity by SM2320B	Less than PQL	0.50	0.50	mg/L	11/1/20 18:16	MS
Total Dissolved Solid-SM2540C	54	2.0	2.0	mg/L	10/30/20 08:51	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

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November 03, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11759**

Wateree Well DUP 3 CCR TDS

Date & Time Sampled: October 28, 2020 10:20
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WADUPTDS

Login Record File: 201028005

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.81	0.50	0.038	mg/L	10/29/20 20:29	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	10/29/20 20:29	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.09			S.U.	11/2/20 19:00	MS
Sulfates by IC EPA 300.0	Less than PQL	0.50	0.063	mg/L	10/29/20 20:29	BB
Total Alkalinity by SM2320B	Less than PQL	0.50	0.50	mg/L	11/1/20 18:16	MS
Total Dissolved Solid-SM2540C	46	2.0	2.0	mg/L	10/30/20 08:51	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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November 03, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11760**

Wateree Well FGD-04 CCR TDS

Date & Time Sampled: October 28, 2020 08:30
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	15.7	0.50	0.038	mg/L	10/29/20 20:29	BB
Total Alkalinity by SM2320B	Less than PQL	0.50	0.50	mg/L	11/1/20 18:16	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

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November 03, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11761**

Wateree Well FGD-05 CCR TDS

Date & Time Sampled: October 28, 2020 09:24
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 201028005

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	10.8	0.50	0.038	mg/L	10/29/20 20:29	BB
Sulfates by IC EPA 300.0	43.7	0.50	0.063	mg/L	10/29/20 20:29	BB
Total Alkalinity by SM2320B	73.2	0.50	0.50	mg/L	11/1/20 18:16	MS

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Central Laboratory (P-08)
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November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11762**

Wateree Well FGD-02 CCR TM

Date & Time Sampled: October 27, 2020 14:32
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD02TM

FGD-02 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	4760	500	83.8	ppb	10/30/20 08:08	CHG
Magnesium EPA 200.7	1440	50	18.7	ppb	10/30/20 08:08	CHG
Potassium EPA 200.7	1940	1000	310	ppb	10/30/20 08:08	CHG
Sodium EPA 200.7	6420	1000	254	ppb	10/30/20 08:08	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

Central Laboratory (P-08)
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November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11763**

Wateree Well FGD-AS-2 CCR TM

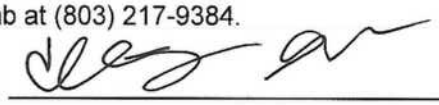
Date & Time Sampled: October 27, 2020 15:16
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGDAS2TM

FGD-05 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	500	165	ppb	10/30/20 08:08	CHG
Calcium EPA 200.7	3390	500	83.8	ppb	10/30/20 08:08	CHG
Magnesium EPA 200.7	2070	50	18.7	ppb	10/30/20 08:08	CHG
Potassium EPA 200.7	1820	1000	310	ppb	10/30/20 08:08	CHG
Sodium EPA 200.7	6050	1000	254	ppb	10/30/20 08:08	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

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November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11764**

Wateree Well FGD-03 CCR TM

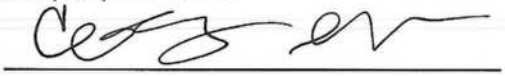
Date & Time Sampled: October 27, 2020 15:52
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD03TM

FGD-03 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	16800	500	83.8	ppb	10/30/20 08:08	CHG
Magnesium EPA 200.7	8240	50	18.7	ppb	10/30/20 08:08	CHG
Potassium EPA 200.7	3500	1000	310	ppb	10/30/20 08:08	CHG
Sodium EPA 200.7	19200	1000	254	ppb	10/30/20 08:08	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11765**

Wateree Well Field Blank 3 CCR TM

Date & Time Sampled: October 28, 2020 07:50
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFBTM

Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	500	165	ppb	10/30/20 08:19	CG46S
Calcium EPA 200.7	Less than MDL	500	83.8	ppb	10/30/20 08:19	CG46S
Magnesium EPA 200.7	Less than MDL	50	18.7	ppb	10/30/20 08:19	CG46S
Potassium EPA 200.7	Less than MDL	1000	310	ppb	10/30/20 08:19	CG46S
Sodium EPA 200.7	Less than MDL	1000	254	ppb	10/30/20 08:19	CG46S

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11766**

Wateree Well FGD-01 CCR TM

Date & Time Sampled: October 28, 2020 10:20
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD01TM

FGD-01 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	500	165	ppb	10/30/20 08:08	CHG
Calcium EPA 200.7	974	500	83.8	ppb	10/30/20 08:08	CHG
Magnesium EPA 200.7	1090	50	18.7	ppb	10/30/20 08:08	CHG
Potassium EPA 200.7	1160	1000	310	ppb	10/30/20 08:08	CHG
Sodium EPA 200.7	3530	1000	254	ppb	10/30/20 08:08	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11767**

Wateree Well DUP 3 CCR TM

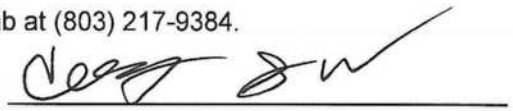
Date & Time Sampled: October 28, 2020 10:20
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WADUPTM

Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	500	165	ppb	10/30/20 08:08	CHG
Calcium EPA 200.7	966	500	83.8	ppb	10/30/20 08:08	CHG
Magnesium EPA 200.7	1090	50	18.7	ppb	10/30/20 08:08	CHG
Potassium EPA 200.7	1150	1000	310	ppb	10/30/20 08:08	CHG
Sodium EPA 200.7	3570	1000	254	ppb	10/30/20 08:08	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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Fax: (803) 217-9911

November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11768**

Wateree Well FGD-04 CCR TM

Date & Time Sampled: October 28, 2020 08:30
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD04TM

FGD-04 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	5010	500	83.8	ppb	10/30/20 08:08	CHG
Magnesium EPA 200.7	912	50	18.7	ppb	10/30/20 08:08	CHG
Potassium EPA 200.7	2130	1000	310	ppb	10/30/20 08:08	CHG
Sodium EPA 200.7	3310	1000	254	ppb	10/30/20 08:08	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
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Tel: (803)217-9384
Fax: (803) 217-9911

November 02, 2020

REPORT TO:

Rashida Marlowe
Rocky Archer

Sample ID: **BA11769**

Wateree Well FGD-05 CCR TM

Date & Time Sampled: October 28, 2020 09:24
Date & Time Submitted: October 28, 2020 11:28
Collected by: A.HILL Location Code: WAFGD05TM

FGD-05 Login Record File: 201028005

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	40400	500	83.8	ppb	10/30/20 08:08	CHG
Magnesium EPA 200.7	5490	50	18.7	ppb	10/30/20 08:08	CHG
Potassium EPA 200.7	3500	1000	310	ppb	10/30/20 08:08	CHG
Sodium EPA 200.7	7640	1000	254	ppb	10/30/20 08:08	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Nautilus Geologic Consulting, PLLC

APPENDIX B

Statistical Analysis of Detection Monitoring Groundwater Quality Results

DOMINION ENERGY
SOUTH CAROLINA

WATEREE STATION
FGD POND

RICHLAND COUNTY, SOUTH CAROLINA

CCR GROUNDWATER DETECTION MONITORING STATISTICAL ANALYSIS REPORT

for the

March 2020 Sampling Event

Prepared on
August 12, 2020

Dominion Energy®

STATISTICAL ANALYSIS REPORT

Groundwater Sampling

In accordance with 40 CFR Part 257.94, the 2020 first semi-annual groundwater sampling event for Detection Monitoring at the Wateree Station FGD Pond began on March 10, 2020. This event included groundwater sampling and resampling from background monitoring wells MW-BG-73, MW-AP-01A, MW-FGD-01, and AS-FGD-01; and the downgradient compliance monitoring wells MW-FGD-02, MW-FGD-03, MW-FGD-04, and MW-FGD-05. The groundwater samples were analyzed for the constituents listed in Appendix III of the EPA CCR Rule which include Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and Total Dissolved Solids.

Statistical Analysis

The statistical analysis indicates that the concentration of calcium in the groundwater samples collected from monitoring wells MW-FGD-02 and MW-FGD-04 show statistically significant increases (SSI) above background concentrations. No other statistically significant increases above/below background concentrations were observed for the CCR Rule Appendix III constituents in the groundwater samples collected from the FGD Pond monitoring wells during the first semi-annual 2020 Detection Monitoring event.

Wateree Station

Wateree Station FGD Pond

Run Id: 1

Location Id: **MW-FGD-02**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	03/10/2020	BA09327	--	--	< 200.000	n	n	--

Run Id: 2

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	03/10/2020	BA09327	1 of 2	2120.000	49200.000	y	n	None
Calcium, tot ug/L	05/27/2020	BA09996	1 of 2	2120.000	2720.000	y	y	None

Run Id: 3

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09298	1 of 2	10.800	6.680	n	n	--

Run Id: 4

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	5.940	n/n	n	--

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 4

Location Id: **MW-FGD-02**

Field pH S.U.	05/27/2020	FLD20200527	1 of 2	6.720	3.440	4.370	n/n	n	--

Run Id: 5

Location Id: **MW-FGD-02**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	03/10/2020	BA09298	--	--	< 0.100	n	n	--

Run Id: 6

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09298	1 of 2	11.000	50.400	y	n	None

Run Id: 7

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09298	1 of 2	472.000	179.000	n	n	--

Run Id: 8

Location Id: **MW-FGD-03**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 8

Location Id: **MW-FGD-03**

Boron, total ug/L	03/10/2020	BA09328	--	--	< 200.000	n	n	--

Run Id: 9

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	03/10/2020	BA09328	1 of 2	2120.000	44300.000	y	n	Downward

Run Id: 10

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09299	1 of 2	10.800	< 0.500	n	n	--

Run Id: 11

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	5.450	n/n	n	--

Run Id: 12

Location Id: **MW-FGD-03**

Compliance Test: **Double Quantification Rule (DQR requires a second sample for a determination)**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 12

Location Id: **MW-FGD-03**

Fluoride, total mg/L	03/10/2020	BA09299	--	--	7.660	n	n	--

Run Id: 13

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09299	1 of 2	11.000	269.000	y	n	None

Run Id: 14

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09299	1 of 2	472.000	421.000	n	n	--

Run Id: 15

Location Id: **MW-FGD-04**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	03/10/2020	BA09329	--	--	< 200.000	n	n	--

Run Id: 16

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 16

Location Id: **MW-FGD-04**

Calcium, tot ug/L	03/10/2020	BA09329	1 of 2	2120.000	5460.000	y	n	None
Calcium, tot ug/L	05/27/2020	BA09997	1 of 2	2120.000	3520.000	y	y	None

Run Id: 17

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09300	1 of 2	10.800	18.800	y	n	Downward

Run Id: 18

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	4.740	n/n	n	--
Field pH S.U.	05/27/2020	FLD20200527	1 of 2	6.720	3.440	4.080	n/n	n	--

Run Id: 19

Location Id: **MW-FGD-04**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	03/10/2020	BA09300	--	--	< 0.100	n	n	--

Run Id: 20

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station

Wateree Station FGD Pond

Run Id: 20

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09300	1 of 2	11.000	10.000	n	n	--

Run Id: 21

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09300	1 of 2	472.000	69.000	n	n	--

Run Id: 22

Location Id: **MW-FGD-05**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	03/10/2020	BA09330	--	--	< 200.000	n	n	--

Run Id: 23

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	03/10/2020	BA09330	1 of 2	2120.000	85000.000	y	n	None

Run Id: 24

Location Id: **MW-FGD-05**

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station

Wateree Station FGD Pond

Run Id: 24

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09301	1 of 2	10.800	7.020	n	n	--

Run Id: 25

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	6.480	n/n	n	--

Run Id: 26

Location Id: **MW-FGD-05**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	03/10/2020	BA09301	--	--	< 0.100	n	n	--

Run Id: 27

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09301	1 of 2	11.000	57.700	y	n	Upward

Run Id: 28

Location Id: **MW-FGD-05**

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station

Wateree Station FGD Pond

Run Id: 28

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09301	1 of 2	472.000	265.000	n	n	--

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 2

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	49200	y
MW-FGD-02	05/27/2020	2720	y

Run Id: 3

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.82
PU (Upper) Value: 10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	6.68	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 4

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-02	03/10/2020	5.94	n	n
MW-FGD-02	05/27/2020	4.37	n	n

Run Id: 6

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.83	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	50.4	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 7

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	179	n

Run Id: 9

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	03/10/2020	44300	y

Run Id: 10

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.82
PU (Upper) Value: 10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

MW-FGD-03	03/10/2020	<0.5	n

Run Id: 11

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-03	03/10/2020	5.45	n	n

Run Id: 13

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.83	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	03/10/2020	269	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 14

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	03/10/2020	421	n

Run Id: 16

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	5460	y
MW-FGD-04	05/27/2020	3520	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 17

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.82	10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	18.8	y

Run Id: 18

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-04	03/10/2020	4.74	n	n
MW-FGD-04	05/27/2020	4.08	n	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 20

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	10	n

Run Id: 21

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	69	n

Run Id: 23

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: **05/01/2016 to 12/31/2020**
Compliance Date Range: **03/01/2020 to 5/31/2020**
No. of Verification Resamples: **1**

MW-FGD-05	03/10/2020	85000	y

Run Id: 24

Background Locations: **AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01**

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.82	10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	03/10/2020	7.02	n

Run Id: 25

Background Locations: **AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01**

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-05	03/10/2020	6.48	n	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 27

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	03/10/2020	57.7	y

Run Id: 28

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	03/10/2020	265	n

Wateree Station

All Backgound Results Non-Detect

Location Id: **MW-FGD-02** Run Id: 1

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-02** Run Id: 5

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	0.100	0.1	0.008	0	0.1	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-03** Run Id: 8

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-03** Run Id: 12

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule (DQR requires a second sample for a determination)

Percent ND: 0

ND Approach: 0% to <= 15% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	7.660	7.66	0.008	0	0.1	N	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-04** Run Id: 15

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

Wateree Station

All Backgound Results Non-Detect

Location Id: **MW-FGD-04** Run Id: 19

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	0.100	0.1	0.008	0	0.1	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-05** Run Id: 22

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-05** Run Id: 26

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	0.100	0.1	0.008	0	0.1	Y	N

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 1

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 93

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-302.813	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.836
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 2

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-466.211	ug/L per year
Lower Confidence Limit of Slope, M1:	-1135.688	ug/L per year
Upper Confidence Limit of Slope, M2+1:	1198.658	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.681
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 3

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-1.068	mg/L per year
Lower Confidence Limit of Slope, M1:	-2.121	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.384	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-3.046
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 4

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.098	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.092	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.352	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.195
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 5

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.764
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 6

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.604	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.644	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.678	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.350
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 7

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-5.578	mg/L per year
Lower Confidence Limit of Slope, M1:	-12.215	mg/L per year
Upper Confidence Limit of Slope, M2+1:	18.105	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.541
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 8

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-302.813	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.836
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 9

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-3414.604	ug/L per year
Lower Confidence Limit of Slope, M1:	-5523.612	ug/L per year
Upper Confidence Limit of Slope, M2+1:	-2062.101	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.467
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 10

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 5

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.893	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.911	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.518	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-3.212
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 11

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.150	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.262	S.U. per year
Upper Confidence Limit of Slope, M2+1:	-0.088	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.842
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 12

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 80

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.595
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 13

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-2.386	mg/L per year
Lower Confidence Limit of Slope, M1:	-7.232	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.163	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.136
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 14

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-10.379	mg/L per year
Lower Confidence Limit of Slope, M1:	-29.149	mg/L per year
Upper Confidence Limit of Slope, M2+1:	19.158	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.154
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 15

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-257.853	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.758
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 16

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-167.594	ug/L per year
Lower Confidence Limit of Slope, M1:	-453.989	ug/L per year
Upper Confidence Limit of Slope, M2+1:	215.540	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.746
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 17

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.745	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.472	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.293	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.500
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 18

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.006	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.147	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.147	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.041
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 19

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.004
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 20

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-1.044	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.947	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.302	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.045
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 21

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.863	mg/L per year
Lower Confidence Limit of Slope, M1:	-3.119	mg/L per year
Upper Confidence Limit of Slope, M2+1:	5.539	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.199
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 22

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-302.270	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.836
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 23

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	389.292	ug/L per year
Lower Confidence Limit of Slope, M1:	-109.071	ug/L per year
Upper Confidence Limit of Slope, M2+1:	3083.089	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.265
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 24

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	1.011	mg/L per year
Lower Confidence Limit of Slope, M1:	0.216	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.665	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	2.034
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 25

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.339	S.U. per year
Lower Confidence Limit of Slope, M1:	0.041	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.551	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.771
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 26

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.764
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 27

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 15% to <= 50% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 29

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	1.215	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	3.968	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.806
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 28

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	11.657	mg/L per year
Lower Confidence Limit of Slope, M1:	8.208	mg/L per year
Upper Confidence Limit of Slope, M2+1:	36.971	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	3.076
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

DOMINION ENERGY
SOUTH CAROLINA

WATEREE STATION
FGD POND

RICHLAND COUNTY, SOUTH CAROLINA

CCR GROUNDWATER DETECTION MONITORING STATISTICAL ANALYSIS REPORT

for the

September 2020 Sampling Event

Prepared on
November 25, 2020

Dominion Energy®

STATISTICAL ANALYSIS REPORT

Groundwater Sampling

In accordance with 40 CFR Part 257.94, the 2020 second semi-annual groundwater sampling event for Detection Monitoring at the Wateree Station FGD Pond began on September 14, 2020. This event included groundwater sampling and resampling from background monitoring wells MW-BG-73, MW-AP-01A, MW-FGD-01, and AS-FGD-01; and the downgradient compliance monitoring wells MW-FGD-02, MW-FGD-03, MW-FGD-04, and MW-FGD-05. The groundwater samples were analyzed for the constituents listed in Appendix III of the EPA CCR Rule which include Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and Total Dissolved Solids.

Statistical Analysis

The statistical analysis indicates that the concentration of chloride in the groundwater samples collected from monitoring well MW-FGD-04 and the concentrations of sulfate in the groundwater samples collected from monitoring wells MW-FGD-03 and MW-FGD-05 show statistically significant increases (SSI) above background concentrations. No other statistically significant increases above/below background concentrations were observed for the CCR Rule Appendix III constituents in the groundwater samples collected from the FGD Pond monitoring wells during the second semi-annual 2020 Detection Monitoring event.

Wateree Station Rocky 202010

Wateree Station FGD Pond

Run Id: 1

Location Id: **MW-FGD-02**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	09/15/2020	BA11120	--	--	< 200.000	n	n	--

Run Id: 2

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	09/15/2020	BA11120	1 of 2	974000.000	3450.000	n	n	--
Calcium, tot ug/L	10/27/2020	BA11762	1 of 2	974000.000	4760000.000	y	n	None

Run Id: 3

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	09/15/2020	BA11111	1 of 2	10.800	7.600	n	n	--

Run Id: 4

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	09/15/2020	FLD20200915	1 of 2	6.720	3.440	4.530	n/n	n	--

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station Rocky 202010

Wateree Station FGD Pond

Run Id: 4

Location Id: **MW-FGD-02**

Field pH S.U.	10/27/2020	FLD20201027	1 of 2	6.720	3.440	4.830	n/n	n	--

Run Id: 5

Location Id: **MW-FGD-02**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	09/15/2020	BA11111	--	--	< 0.100	n	n	--

Run Id: 6

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	09/15/2020	BA11111	1 of 2	11.000	5.580	n	n	--

Run Id: 7

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	09/15/2020	BA11111	1 of 2	472.000	86.000	n	n	--

Run Id: 8

Location Id: **MW-FGD-03**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 8

Location Id: **MW-FGD-03**

Boron, total ug/L	09/15/2020	BA11121	--	--	< 200.000	n	n	--

Run Id: 9

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	09/15/2020	BA11121	1 of 2	974000.000	14500.000	n	n	--
Calcium, tot ug/L	10/27/2020	BA11764	1 of 2	974000.000	16800000.000	y	n	None

Run Id: 10

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	09/15/2020	BA11112	1 of 2	10.800	8.480	n	n	--

Run Id: 11

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	09/15/2020	FLD20200915	1 of 2	6.720	3.440	4.750	n/n	n	--
Field pH S.U.	10/27/2020	FLD20201027	1 of 2	6.720	3.440	5.160	n/n	n	--

Run Id: 12

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station Rocky 202010

Wateree Station FGD Pond

Run Id: 12

Location Id: **MW-FGD-03**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	09/15/2020	BA11112	--	--	< 0.100	n	n	--

Run Id: 13

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	09/15/2020	BA11112	1 of 2	11.000	65.300	y	n	None
Sulfate, tot mg/L	10/27/2020	BA11756	1 of 2	11.000	118.000	y	y	None

Run Id: 14

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	09/15/2020	BA11112	1 of 2	472.000	166.000	n	n	--

Run Id: 15

Location Id: **MW-FGD-04**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	09/15/2020	BA11122	--	--	< 200.000	n	n	--

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station Rocky 202010

Wateree Station FGD Pond

Run Id: 16

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	09/15/2020	BA11122	1 of 2	974000.000	4230.000	n	n	--
Calcium, tot ug/L	10/28/2020	BA11768	1 of 2	974000.000	5010000.000	y	n	None

Run Id: 17

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	09/15/2020	BA11113	1 of 2	10.800	12.300	y	n	None
Chloride, tot mg/L	10/28/2020	BA11760	1 of 2	10.800	15.700	y	y	None

Run Id: 18

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	09/15/2020	FLD20200915	1 of 2	6.720	3.440	3.790	n/n	n	--
Field pH S.U.	10/28/2020	FLD20201028	1 of 2	6.720	3.440	4.270	n/n	n	--

Run Id: 19

Location Id: **MW-FGD-04**

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 19

Location Id: **MW-FGD-04**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	09/15/2020	BA11113	--	--	< 0.100	n	n	--

Run Id: 20

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	09/15/2020	BA11113	1 of 2	11.000	4.610	n	n	--

Run Id: 21

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	09/15/2020	BA11113	1 of 2	472.000	97.000	n	n	--

Run Id: 22

Location Id: **MW-FGD-05**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	09/15/2020	BA11123	--	--	< 200.000	n	n	--

Run Id: 23

Location Id: **MW-FGD-05**

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station Rocky 202010

Wateree Station FGD Pond

Run Id: 23

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	09/15/2020	BA11123	1 of 2	974000.000	6370.000	n	n	--
Calcium, tot ug/L	10/28/2020	BA11769	1 of 2	974000.000	40400000.000	y	n	Upward

Run Id: 24

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	09/15/2020	BA11114	1 of 2	10.800	14.800	y	n	Upward
Chloride, tot mg/L	10/28/2020	BA11761	1 of 2	10.800	10.800	n	n	--

Run Id: 25

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	09/15/2020	FLD20200915	1 of 2	6.720	3.440	4.270	n/n	n	--
Field pH S.U.	10/28/2020	FLD20201028	1 of 2	6.720	3.440	5.850	n/n	n	--

Run Id: 26

Location Id: **MW-FGD-05**

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station Rocky 202010

Wateree Station FGD Pond

Run Id: 26

Location Id: **MW-FGD-05**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	09/15/2020	BA11114	--	--	< 0.100	n	n	--

Run Id: 27

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	09/15/2020	BA11114	1 of 2	11.000	15.800	y	n	Upward
Sulfate, tot mg/L	10/28/2020	BA11761	1 of 2	11.000	43.700	y	y	Upward

Run Id: 28

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	09/15/2020	BA11114	1 of 2	472.000	147.000	n	n	--

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 2

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	74	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.86
PU (Upper) Value: 974000.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	09/15/2020	3450	n
MW-FGD-02	10/27/2020	4760000	y

Run Id: 3

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	71	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.85
PU (Upper) Value: 10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	09/15/2020	7.6	n

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 4

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.83	89.33	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-02	09/15/2020	4.53	n	n
MW-FGD-02	10/27/2020	4.83	n	n

Run Id: 6

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	72	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.85	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	09/15/2020	5.58	n

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 7

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	09/15/2020	86	n

Run Id: 9

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	74	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.86
PU (Upper) Value: 974000.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	09/15/2020	14500	n
MW-FGD-03	10/27/2020	16800000	y

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 10

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	71	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.85	10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	09/15/2020	8.48	n

Run Id: 11

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.83	89.33	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-03	09/15/2020	4.75	n	n
MW-FGD-03	10/27/2020	5.16	n	n

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 13

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	72	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.85	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	09/15/2020	65.3	y
MW-FGD-03	10/27/2020	118	y

Run Id: 14

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.83	472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	09/15/2020	166	n

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 16

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	74	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.86
PU (Upper) Value: 974000.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	09/15/2020	4230	n
MW-FGD-04	10/28/2020	5010000	y

Run Id: 17

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	71	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.85
PU (Upper) Value: 10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	09/15/2020	12.3	y
MW-FGD-04	10/28/2020	15.7	y

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 18

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.83	89.33	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-04	09/15/2020	3.79	n	n
MW-FGD-04	10/28/2020	4.27	n	n

Run Id: 20

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	72	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.85	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	09/15/2020	4.61	n

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 21

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	09/15/2020	97	n

Run Id: 23

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	74	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.86
PU (Upper) Value: 974000.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	09/15/2020	6370	n
MW-FGD-05	10/28/2020	40400000	y

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 24

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	71	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.85	10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	09/15/2020	14.8	y
MW-FGD-05	10/28/2020	10.8	n

Run Id: 25

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.83	89.33	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-05	09/15/2020	4.27	n	n
MW-FGD-05	10/28/2020	5.85	n	n

Wateree Station Rocky 202010
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 09/01/2020 to 10/31/2020
No. of Verification Resamples: 1

Run Id: 27

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	72	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.85	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	09/15/2020	15.8	y
MW-FGD-05	10/28/2020	43.7	y

Run Id: 28

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	67	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.83	472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	09/15/2020	147	n

Wateree Station Rocky 202010

All Backgound Results Non-Detect

Location Id: **MW-FGD-02** Run Id: 1

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	200.000	43.8	38.458	200	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-02** Run Id: 5

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	0.100	0.008	0.008	0.1	0.1	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-03** Run Id: 8

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	200.000	38.458	38.458	200	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-03** Run Id: 12

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	0.100	0.008	0.008	0.1	0.1	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-04** Run Id: 15

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	200.000	38.458	38.458	200	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-04** Run Id: 19

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	0.100	0.008	0.008	0.1	0.1	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-05** Run Id: 22

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	200.000	38.458	38.458	200	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-05** Run Id: 26

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
09/15/2020	0.100	0.008	0.008	0.1	0.1	Y	N

All Backgound Results Non-Detect

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 1

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 94

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-187.864	ug/L per year
Lower Confidence Limit of Slope, M1:	-270.941	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.986
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 2

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 10/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-58.332	ug/L per year
Lower Confidence Limit of Slope, M1:	-816.100	ug/L per year
Upper Confidence Limit of Slope, M2+1:	1848.261	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.169
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 3

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.916	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.975	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.253	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.696
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 4

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 10/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.058	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.100	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.185	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.665
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 5

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.556
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 6

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.071	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.536	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.019	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.227
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 7

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-1.964	mg/L per year
Lower Confidence Limit of Slope, M1:	-11.628	mg/L per year
Upper Confidence Limit of Slope, M2+1:	14.076	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.247
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 8

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-187.864	ug/L per year
Lower Confidence Limit of Slope, M1:	-270.941	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.986
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 9

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 10/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-2344.255	ug/L per year
Lower Confidence Limit of Slope, M1:	-4066.098	ug/L per year
Upper Confidence Limit of Slope, M2+1:	279.110	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.439
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 10

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 5

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.793	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.489	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.339	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.808
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 11

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 10/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.177	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.272	S.U. per year
Upper Confidence Limit of Slope, M2+1:	-0.118	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-3.569
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 12

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 81

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.276
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 13

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 10/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.736	mg/L per year
Lower Confidence Limit of Slope, M1:	-5.255	mg/L per year
Upper Confidence Limit of Slope, M2+1:	15.404	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.169
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 14

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-7.771	mg/L per year
Lower Confidence Limit of Slope, M1:	-20.773	mg/L per year
Upper Confidence Limit of Slope, M2+1:	21.359	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.569
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 15

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-242.795	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-3.001
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 16

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 10/28/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	89.963	ug/L per year
Lower Confidence Limit of Slope, M1:	-275.312	ug/L per year
Upper Confidence Limit of Slope, M2+1:	538.342	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.395
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 17

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 10/28/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.397	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.070	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.849	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.071
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 18

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 10/28/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.038	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.152	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.092	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.420
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 19

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.764
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 20

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.847	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.646	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.044	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.749
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 21

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL
Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	3.074	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.552	mg/L per year
Upper Confidence Limit of Slope, M2+1:	9.946	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.860
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 22

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-187.738	ug/L per year
Lower Confidence Limit of Slope, M1:	-270.869	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.986
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 23

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 10/28/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	1272.066	ug/L per year
Lower Confidence Limit of Slope, M1:	227.609	ug/L per year
Upper Confidence Limit of Slope, M2+1:	4400.759	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	2.030
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 24

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 10/28/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.743	mg/L per year
Lower Confidence Limit of Slope, M1:	0.075	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.332	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.876
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 25

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 10/28/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.279	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.049	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.429	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.399
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 26

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.556
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 27

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 10/28/2020
Option for LT Points: > 15% to <= 50% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 26

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	1.929	mg/L per year
Lower Confidence Limit of Slope, M1:	0.055	mg/L per year
Upper Confidence Limit of Slope, M2+1:	6.566	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	2.348
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 28

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 09/15/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	14.002	mg/L per year
Lower Confidence Limit of Slope, M1:	8.434	mg/L per year
Upper Confidence Limit of Slope, M2+1:	33.549	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	3.261
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station Rocky 202010
Theil Sen Mann-Kendall Trend Analysis

Nautilus Geologic Consulting, PLLC

APPENDIX C

Alternate Source Demonstration Report

Nautilus Geologic Consulting, PLLC

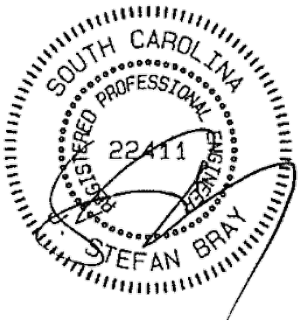
ALTERNATE SOURCE DEMONSTRATION REPORT:
March 2020 Monitoring

EPA CCR RULE COMPLIANCE

DOMINION ENERGY SOUTH CAROLINA:
Wateree Station: FGD Pond

September 2020

Prepared by:



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1.0 INTRODUCTION

This document presents an Alternate Source Demonstration (ASD) in compliance with 40 CFR Part 257 Subpart D 257.94(e)(2) of the April 2015 EPA Coal Combustion Residuals (CCR) Rule (Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments; 40 CFR Part 257 Subpart D) with respect to the Dominion Energy South Carolina (DESC) Wateree Station Flue Gas Desulfurization (FGD) Pond in Eastover, Richland County, South Carolina (**Figures 1 and 2**). The FGD Pond is a CCR unit as defined in the EPA CCR Rule and receives an aqueous FGD waste stream from DESC Wateree Generating Station. The FGD Pond is constructed with a composite liner system consisting of an 18" thick low permeability compacted soil liner (1×10^{-5} cm/sec maximum permeability), which is overlain by a geosynthetic clay liner, which is in turn overlain by a 60-mil HDPE geomembrane liner. The HDPE liner was electronically leak tested after installation to verify the installed liner was free of installation defects and holes.

Review of the statistical analysis of data from the Detection Monitoring event conducted in March 2020 indicates that the concentrations of the monitoring parameters detected in groundwater were within acceptable statistical limits for each constituent except for statistically significant increases (SSIs) observed for calcium at EPA CCR Rule compliance monitoring wells MW-FGD-02 and MW-FGD-04. 40 CFR 257.94(e)(2) allows the owner or operator 90 days from the date of determination to demonstrate that the apparent SSIs were from a source other than the CCR unit or resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Pursuant to 40 CFR 257.94(e)(2), the following sections provide data to support the conclusion that the SSIs observed for the constituents cited above are attributable to a source other than the FGD Pond.

2.0 GROUNDWATER MONITORING WELL SYSTEM

Eight Type II groundwater monitoring wells (designated MW-FGD-01 through MW-FGD-05, and AS-FGD-01 through AS-FGD-03) were installed at Wateree Station FGD Pond in March 2016 and July 2017 to serve as EPA CCR Rule Compliance monitoring wells (MW-FGD-01 through MW-FGD-05) and ASD monitoring wells (AS-FGD-01 through AS-FGD-03). Five of the Type II groundwater monitoring wells (MW-FGD-01 through MW-FGD-05) were initially installed at the site in March 2016. The three ASD monitoring wells were installed in July 2017 to support an ASD based on an evaluation of available groundwater quality data from the EPA CCR Rule compliance monitoring wells. Rising head permeability (slug) tests were conducted at monitoring wells MW-FGD-01 through MW-FGD-05 in May 2016. A site location map is presented as **Figure 1** and a site map showing the locations and designations of the monitoring wells at Wateree Station FGD Pond is presented as **Figure 2**. A South Carolina licensed well driller with Terracon, Inc. of Columbia, South Carolina (SC License #2116) performed the drilling and installations for monitoring wells MW-FGD-01 through MW-FGD-05. A South Carolina licensed well driller with Red Dog Drilling, LLC of Midland, North Carolina (SC License #1230) performed the drilling and installation of monitoring wells AS-FGD-01 through AS-FGD-03. A South Carolina registered surveyor from the GEL Group, Inc. of Charleston, South Carolina (ELS SC license #15513) surveyed the monitoring wells for horizontal position, ground surface elevation and top of PVC pipe elevation.

The eight Type II groundwater monitoring wells were installed to monitor groundwater quality in the vicinity of the FGD Pond in compliance with the groundwater monitoring requirements of the US EPA CCR Rule (40 CFR Parts 257.93 and 257.94(e)(2)). The locations and designations of the monitoring wells are shown in **Figure 2**. Monitoring wells MW-FGD-01 and AS-FGD-01 serve as a background wells to monitor the quality of groundwater in the surficial aquifer up gradient of the area of the FGD Pond. The remaining monitoring wells (MW-FGD-02 through MW-FGD-05, and AS-FGD-02 and AS-FGD-03) serve as down gradient wells to monitor the quality of groundwater down gradient of the FGD Pond. In addition, groundwater quality data from existing background monitoring well MW-AP-01A (**Figure 2**) is used for statistical analysis for Detection Monitoring. Monitoring well construction data and specifications are presented in **Table 1**.

3.0 GROUNDWATER MONITORING

3.1 Groundwater Sampling

In accordance with 40 CFR Part 257.94, the sixth round of Detection Monitoring was conducted on March 9 and 10, 2020 and included groundwater sampling from monitoring wells MW-FGD-01 through MW-FGD-05, AS-FGD-01, AS-FGD-02, AS-FGD-03 and MW-AP-01A, as well as sampling of FGD Pond wastewater from FGD Treatment Pond B. One groundwater sample was collected from each of the monitoring wells during the Detection Monitoring event. All groundwater samples collected from the monitoring wells for Detection Monitoring in March 2020 were analyzed by a South Carolina Certified laboratory (DESC Central Laboratory (Certification Number 32006)) for the constituents listed in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107), as well as lithium. It is noted that the wastewater sample collected from FGD Treatment Pond B in March 2020 was also analyzed for the all the constituents included in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107) and in Appendix IV of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107), except Radium 226 and 228. In addition, all groundwater samples and the wastewater sample from FGD Treatment Pond B were analyzed for total alkalinity, magnesium, potassium and sodium.

Based on the results of the March 2020 Detection Monitoring results, groundwater was sampled for field and laboratory analysis from monitoring wells MW-FGD-01, MW-FGD-02, MW-FGD-04, AS-FGD-01, AS-FGD-02, AS-FGD-03 and MW-AP-01A in May 2020 to confirm the March 2020 monitoring results and supplement the site water quality database for statistical analysis. The groundwater samples collected from the monitoring were analyzed for calcium, magnesium, potassium and sodium. All groundwater samples collected from the monitoring wells during the March 2020 resampling event were analyzed by a South Carolina Certified laboratory (DESC Central Laboratory (Certification Number 32006)).

3.2 Results of Field and Laboratory Analyses of Groundwater Samples

The results of the field and laboratory analyses of the groundwater samples collected from the monitoring wells during the independent rounds of monitoring conducted during the period of May 2016 through July 2017, the first six rounds of Detection Monitoring conducted in September 2017, March and September 2018, March and August 2019, and March 2020, as well as supplemental groundwater monitoring conducted in October and November 2017, November 2018, May and November 2019, and May 2020, and

samples of aqueous FGD waste collected from the treatment pond are presented in **Table 2**. Copies of the laboratory report forms for the groundwater samples collected during the sixth round of Detection Monitoring conducted in March 2020, as well as the supplemental monitoring conducted in May 2020, are included in **Appendix A**. It is worthy of note that boron was not detected in any of the groundwater samples collected from the EPA CCR Rule compliance monitoring wells or ASD wells during the March 2020 Detection Monitoring event, whereas boron was detected at significantly elevated concentrations (30,800 to 193,000 μg/L) in the seven aqueous FGD waste samples collected during the period of June 2017 through March 2020.

Statistical analysis to compare the groundwater quality in the downgradient monitoring wells to that of background water quality for the March 2020 Detection Monitoring event was completed on August 12, 2020 by DESC. The results of the statistical analysis are presented in **Appendix B**. The statistical analysis indicates that the concentrations of calcium in the groundwater samples collected from compliance monitoring wells MW-FGD-02 and MW-FGD-04 show statistically significant increases over background concentrations (as determined from the data for groundwater samples collected from background monitoring wells MW-FGD-01, MW-AP-01A and AS-FGD-01). No other statistically significant increases over background levels were observed for the CCR Rule Appendix III constituents in the groundwater samples collected from the monitoring wells during the March 2020 Detection Monitoring event.

An isoconcentration contour map of calcium in groundwater based on groundwater quality data from Detection Monitoring conducted in March 2020 is presented as **Figure 3**. The calcium isoconcentration contour map in **Figure 3** shows the highest concentration of calcium in groundwater at the location of EPA CCR Rule down gradient compliance monitoring well MW-FGD-05 (85.0 mg/L). The concentrations of calcium in groundwater across the area of the FGD Pond based on the March 2020 monitoring data ranged from 0.865 mg/L (AS-FGD-01) to 85.0 mg/L (MW-FGD-05), and averaged 13.93 mg/L. The calcium concentration in groundwater at background monitoring well MW-FGD-01 was 2.12 mg/L.

It is noted that monitoring wells MW-FGD-02, MW-FGD-03, MW-FGD-04 and MW-FGD-05 are located immediately adjacent to and hydraulically down gradient from the FGD Pond. The FGD Pond is constructed with a composite liner system consisting of an 18" thick low permeability compacted soil liner (1 x 10^{-5} cm/sec maximum permeability), which is overlain by a geosynthetic clay liner, which is in turn overlain by a 60-mil HDPE

geomembrane liner. The HDPE liner was electronically leak tested after installation to verify the installed liner was free of installation defects and holes. No physical evidence of leakage (e.g., seeps around the perimeter berm) has been observed at the FGD Pond since its construction. These observations, as well as the lack of boron in groundwater at MW-FGD-02, MW-FGD-03, MW-FGD-04 and MW-FGD-05, while boron has been shown to be present in significantly high concentrations in the aqueous FGD waste, support the conclusion that the SSIs for calcium in groundwater based on the March 2020 Detection Monitoring data were not caused by a release of aqueous waste from the FGD Pond.

A graph of calcium concentrations versus time for groundwater samples collected from CCR compliance monitoring wells MW-FGD-01 through MW-FGD-05, as well as ASD monitoring wells AS-FGD-01 through AS-FGD-03, since the inception of monitoring at each well is presented in **Appendix C**. The graph indicates that the concentrations of calcium in groundwater at most monitoring wells show relative stability over the period of monitoring. In contrast to the observed general trend, the concentrations of calcium detected in groundwater at monitoring wells MW-FGD-02 and MW-FGD-05 show moderately increasing trends over the period of monitoring. It is noted that the calcium concentrations detected in the aqueous waste in the FGD Pond are 2 to 3 orders-of magnitude higher than the calcium concentrations reported in the down-gradient EPA CCR Rule monitoring wells (**Table 2**). Consequently, a release of aqueous waste from the FGD Pond would be expected to manifest as substantial and sustained increases in calcium concentrations in groundwater at the down-gradient monitoring wells. Such substantial and sustained increases in calcium concentrations have not been observed in groundwater at the down-gradient EPA CCR Rule monitoring wells. These observations further support the conclusion that the SSIs for calcium identified by statistical analysis of the groundwater quality data from the March 2020 Detection Monitoring event are attributable to a source other than a release of aqueous waste from the FGD Pond.

3.3 Groundwater Flow

Groundwater flow direction, average hydraulic gradient, and average interstitial flow velocity at the Wateree Generating Station FGD Pond were derived from water-level measurements recorded in March 2020 and the results of slug tests conducted at CCR Rule compliance monitoring wells MW-FGD-01 through MW-FGD-05 in May 2016. A water-table elevation contour map derived from the groundwater elevation

measurements recorded in March 2020 is presented as **Figure 4**. The water-table elevation contours in **Figure 4** indicate that the direction of shallow groundwater flow is generally to the east-southeast towards the Wateree River with an average hydraulic gradient of approximately 0.009 ft./ft. in the area of the FGD Pond.

The hydraulic gradient in the vicinity of each well was derived by dividing the elevation difference between water table elevations measured at the monitoring wells and proximal water-table elevation contour lines by the perpendicular horizontal distance between the wells and contours (**Figure 5**). Results of in-situ slug testing conducted in May 2016 indicate hydraulic conductivity values in the surficial aquifer in the vicinity of the FGD Pond CCR Rule compliance monitoring wells ranging from 1.35×10^{-3} cm/s to 1.51×10^{-2} cm/s (approximately 3.84 ft./day to 42.9 ft./day). Using the horizontal hydraulic gradient measurements, the individual estimates of hydraulic conductivity, and estimated effective porosity values ranging from 0.22 to 0.25, the range of average interstitial groundwater flow velocities for the shallow surficial aquifer was calculated using the following formula:

$$v_x = (K/n_e) \cdot \frac{dh}{dl}$$

Where:

v_x = average interstitial groundwater flow velocity
K = hydraulic conductivity
n_e = effective porosity
dh/dl = horizontal hydraulic gradient

Average linear flow velocities calculated for March 2020 are estimated to range between approximately 0.11 to 1.36 feet/day, with a geometric mean velocity of 0.61 ft./day in the vicinity of the FGD Pond. These results are consistent with previous delineations of groundwater flow rate at the site.

4.0 EVIDENCE OF AN ALTERNATE SOURCE FOR OBSERVED SSIs

4.1 Key Indicators

The Electric Power Research Institute (EPRI) defines key indicators for the presence of CCR leachate in groundwater at compliance monitoring wells as:

- constituents that typically have high concentrations in leachate, relative to background, such that they are expected to have elevated concentrations in groundwater in the event of a release; and
- are not reactive, and have high mobility in groundwater such that they are expected to be at the leading edge of the plume, meaning that they will have elevated concentrations relative to background across the entire area of the plume.[1]

Both boron and sulfate are key indicators of the presence of coal ash leachate in groundwater, and sulfate is a key indicator of FGD waste leachate in groundwater.[1] Other non-reactive, highly mobile substances can also be primary indicators of coal ash (e.g., molybdenum from fly ash derived from bituminous coal) or FGD waste leachate (e.g., boron and chloride derived from unwashed FGD waste) under certain circumstances.[1]

Collection and laboratory analysis of leachate or concentrated waste streams provides useful data for an ASD evaluation with respect to identifying the waste stream chemical fingerprint and whether key indicator constituents are present in the waste stream at concentrations that are higher than those in background groundwater and can, therefore, potentially cause SSIs if released to groundwater.[1] Concentrated aqueous FGD waste was collected for laboratory analysis of most of the parameters included in Appendix III and Appendix IV of the EPA CCR Rule in June, October and November 2017, November 2018 March and August 2019, and March 2020. The waste stream samples were collected directly from the FGD Pond into laboratory containers. The results of analysis of the waste stream samples are presented in **Table 2**. The results indicate that the FGD waste stream contained concentrations of calcium (constituent triggering SSIs in groundwater at compliance monitoring wells MW-FGD-02 and MW-FGD-04) that are significantly in excess of the concentrations of these constituents

[1] Electric Power Research Institute, 2017. *Guidelines for Development of Alternate Source Demonstrations at Coal Combustion Residual Sites*; EPRI, Palo Alto, CA: 3002010920; 132 pp.

measured in groundwater at background monitoring well MW-FGD-01 during the eight independent rounds of monitoring, the Detection Monitoring events conducted to date, as well as additional groundwater monitoring conducted in November 2017 and 2018, May and November 2019, and May 2020 (**Table 2**). Moreover, the concentrations of calcium detected in the FGD waste stream greatly exceed the concentrations detected in groundwater samples collected from up gradient ASD monitoring well AS-LF-01 during the monitoring events conducted in the period of July through November 2017, the Detection Monitoring events conducted in March and September 2018, March and August 2019, and March 2020, and additional groundwater monitoring conducted in November 2018, May and November 2019, and May 2020. Therefore, a release of the concentrated aqueous FGD waste to groundwater from the FGD Pond could potentially cause SSIs for calcium. It is noted, however, that the concentrations of calcium detected in the aqueous FGD waste are generally 2 to 3 orders-of-magnitude higher than the concentrations detected in groundwater at the down-gradient EPA CCR Rule and ASD monitoring wells. Inasmuch as EPA CCR Rule compliance monitoring wells MW-FGD-02, MW-FGD-03, MW-FGD-04 and MW-FGD-05 are located immediately adjacent to and hydraulically down gradient of the FGD Pond, this observation raises significant doubt that the SSIs for calcium in groundwater at monitoring wells MW-FGD-02 and MW-FGD-04 were caused by a release of aqueous FGD waste from the FGD Pond.

It is of particular note that the aqueous FGD waste stream samples collected to date contained significantly elevated concentrations of boron (30,800 to 193,000 μg/L). However, boron was not detected in any of the groundwater samples collected from the EPA CCR Rule compliance monitoring wells or ASD wells during the March 2020 Detection Monitoring event. Inasmuch as boron is essentially unreactive and highly mobile in natural groundwater, the absence of boron (a key indicator of unwashed FGD waste) in groundwater at the down gradient compliance monitoring wells during the March 2020 Detection Monitoring event is a key line of evidence supporting a conclusion that the SSIs for calcium in groundwater at monitoring wells MW-FGD-02 and MW-FGD-04 based on the March 2020 Detection Monitoring groundwater quality data are attributable to a source other than a release of aqueous FGD waste from the FGD Pond.

4.2 Major Ion Analysis

Major ion chemistry, including both cations (calcium, magnesium, sodium and potassium) and anions (total alkalinity, chloride and sulfate), can be used to fingerprint source waters and to identify mixing of source waters and other sources such as leachate or wastewater. As such, major ion chemistry can be used to determine if down gradient groundwater geochemistry reflects mixing of background groundwater and leachate or wastewater from a CCR unit. Piper diagrams are a useful graphical representation of major ion chemistry to differentiate the geochemical signatures of leachate or wastewater from background groundwater and to identify mixing of leachate or wastewater and background groundwater. Mixing of leachate or wastewater and background groundwater is evident in a Piper diagram when down gradient groundwater data plots at a point between leachate or wastewater data and background groundwater data.[1] Conversely, little or no mixing is evident if down gradient groundwater data plots with background groundwater data or at points that are not between background groundwater and leachate or wastewater data.[1]

Table 3 presents the results of major ion analyses of groundwater samples collected from background and down gradient EPA CCR Rule monitoring wells and ASD monitoring wells in October and November 2017, March and September 2018, March and August 2019, and March 2020. The data for October and November 2017, March and August 2019, and March 2020 also includes results for aqueous FGD waste collected from the FGD Pond contemporaneously with the groundwater samples during those sampling events, while the data for September 2018 include results for aqueous FGD waste collected in November 2018 from the FGD Pond, for purposes of comparison.

A charge balance analysis of the groundwater and aqueous FGD waste samples is presented in **Table 4**. In general, if the charge balance falls outside a range of ±10%, it may indicate that significant ionic constituents are missing from the charge balance calculations or that there may be errors in the reported analytical results. The analysis in **Table 4** for the October and November 2017 data shows that the charge balance error for the groundwater samples from background monitoring well MW-FGD-01, up-gradient ASD monitoring well AS-FGD-01, and several down gradient monitoring wells fall slightly outside the preferred range of error. The analysis in **Table 4** for the March 2018 data shows that the charge balance error for the groundwater sample from background monitoring well MW-FGD-01 also falls slightly outside the preferred range

of error, while all of the charge balance errors for the September 2018 data (including the November 2018 FGD waste) fall within the preferred range of error. The analysis in **Table 4** for the March 2019 data shows that the charge balance errors for background monitoring well MW-FGD-01, up-gradient ASD monitoring well AS-FGD-01, and down-gradient CCR Rule compliance monitoring well MW-FGD-04 fall slightly outside the preferred range of error. The analysis in **Table 4** for the August 2019 data shows all of the charge balance errors fall within the preferred range of error, whereas the analysis for the March 2020 data shows that the charge balance errors for background monitoring wells MW-FGD-01 and AS-FGD-01, as well as down gradient monitoring wells MW-FGD-05,and AS-FGD-02 fall outside the preferred range of error.

Calculated charge balance errors that fall outside the preferred range indicate that the calculated results are either missing a significant ionic species (e.g., NO_3^-) or that the reported laboratory results for the ion analyses are in error. Inasmuch as the charge balance errors for the groundwater samples (including background samples) from monitoring events conducted prior to March 2020 that fall slightly outside the preferred range all fall within a narrow range of values above the upper limit of the preferred range, it is likely that an ionic species is missing from the calculations. Further, since all of the charge balance errors outside the preferred range are positive, the missing species is likely an anion (e.g., NO_3^-). For the March 2020 data, the charge balance errors at background monitoring well MW-FGD-01 and down gradient monitoring well MW-FGD-05 are both positive and fall slightly outside the preferred range of error, as observed for previous monitoring events at multiple monitoring wells, whereas the charge balance errors for background monitoring well AS-FGD-01 and down gradient monitoring well AS-FGD-02 are both negative and fall well outside the preferred range of error. These observations indicate a complex range of groundwater quality in background groundwater flowing toward and beneath the FGD Pond, with the likelihood that an anionic species is missing from the charge balance calculations for groundwater in the northern area of the FGD Pond system and a cationic species is missing from the charge balance calculations for groundwater in the southern area of the FGD Pond system. Since Piper diagrams use only the ionic constituents included in **Tables 3** and **4**, and the charge balance errors outside the preferred range are observed in both background (up gradient) and down gradient groundwater samples, the data in **Table 3** are considered suitable for constructing relevant Piper diagrams to evaluate and compare the aqueous chemistry of the groundwater and aqueous FGD waste. It is noted that charge balance errors for the aqueous FGD waste samples fall within the preferred range of error except for the sample collected in March 2020.

Piper diagrams constructed using the data in **Table 3** are presented in **Figures 6**, **7, 8, 9, 10, 11** and **12**. The diagrams were constructed using total alkalinity in place of combined carbonate and bicarbonate ion concentrations. In most natural waters, all anion bases except carbonate and bicarbonate are present in very low and negligible concentrations. Therefore, total alkalinity is commonly used as an acceptable substitute for the results of individual analyses of carbonate and bicarbonate concentrations.

The Piper diagrams for October and November 2017, and March and September 2018, are very similar and show that the data for EPA CCR Rule and ASD down gradient monitoring wells generally cluster with the data from EPA CCR Rule and ASD background monitoring wells in all three plots that make up the Piper diagram (with the exception of data for monitoring well MW-FGD-03 in the October and November 2017 and March 2018 diagrams). Moreover, the diagrams for October and November 2017 and November 2018 show that the aqueous FGD waste has a distinct geochemical signature in the cation ternary plots and the composite diamond plots that is significantly different from the groundwater at the EPA CCR Rule and ASD monitoring wells. The data for down gradient EPA CCR Rule monitoring well MW-FGD-03 show a somewhat distinct geochemical signature from the remaining EPA CCR Rule and ASD monitoring wells, but do not plot between the data for the up gradient, background wells and the aqueous FGD waste in the October and November 2017 and November 2018 Piper diagrams (data for aqueous FGD waste is not available for March 2018). In the anion ternary plots, the data for the aqueous FGD waste generally cluster with the data for groundwater from the EPA CCR Rule and ASD monitoring wells, including the up gradient, background monitoring wells. These observations indicate that aqueous FGD waste is not affecting the geochemical signature of groundwater at the down gradient EPA CCR Rule and ASD monitoring wells.

The Piper diagram for March 2019 shows that the data for all of the EPA CCR Rule and ASD down gradient monitoring wells except MW-FGD-02 and MW-FGD-05 cluster with the data from EPA CCR Rule and ASD background monitoring wells in the cation ternary and composite diamond plots. The data for down gradient monitoring wells MW-FGD-02 and MW-FGD-05 show distinct geochemical signatures from the remaining EPA CCR Rule and ASD monitoring wells in all three plots, but do not plot between the data for the up gradient, background wells and the aqueous FGD waste. The data for the aqueous FGD waste has a distinct geochemical signature in the cation ternary and composite diamond plots that is significantly different from the groundwater at the EPA

CCR Rule and ASD monitoring wells. In the anion ternary plot, the data for the aqueous FGD waste clusters with the data for groundwater from the up gradient, background EPA CCR Rule and ASD monitoring wells. These observations are consistent with those from the October and November 2017, and March and September 2018 Piper diagrams in that they likewise indicate aqueous FGD waste is not affecting the geochemical signature of groundwater at the down gradient EPA CCR Rule and ASD monitoring wells.

The Piper diagram for August 2019 shows that the data for all of the EPA CCR Rule and ASD down gradient monitoring wells cluster with the data from EPA CCR Rule and ASD background monitoring wells in the cation ternary and composite diamond plots. The data for the aqueous FGD waste has a distinct geochemical signature in the cation ternary and composite diamond plots that is significantly different from the groundwater at the EPA CCR Rule and ASD monitoring wells. In the anion ternary plot, the data for the aqueous FGD waste clusters with the data for groundwater from the EPA CCR Rule and ASD monitoring wells. These observations are consistent with those from the October and November 2017, March and September 2018, and March 2019 Piper diagrams in that they likewise indicate aqueous FGD waste is not affecting the geochemical signature of groundwater at the down gradient EPA CCR Rule and ASD monitoring wells.

The Piper diagram for March 2020 shows that the data for all of the EPA CCR Rule and ASD down gradient monitoring wells except MW-FGD-02 and MW-FGD-05 cluster with the data from EPA CCR Rule and ASD background monitoring wells in the cation ternary plot. In the composite diamond plot the data are more broadly scattered for all of the monitoring wells. It is noted, however, that the data for the aqueous FGD waste has a distinct geochemical signature in the cation ternary and composite diamond plots that is significantly different from the groundwater at the EPA CCR Rule and ASD monitoring wells, and the data for the EPA CCR Rule and ASD monitoring wells do not plot between the data for the up gradient, background wells and the aqueous FGD waste. The data for the aqueous FGD waste has a distinct geochemical signature in the cation ternary and composite diamond plots that is significantly different from the groundwater at the EPA CCR Rule and ASD monitoring wells, however, in the anion ternary plot, the data for the aqueous FGD waste clusters with the data for groundwater from monitoring wells MW-FGD-04 and AS-FGD-03. These observations are generally consistent with those from the October and November 2017, March and September 2018, and March and August 2019 Piper diagrams in that they likewise indicate

aqueous FGD waste is not affecting the geochemical signature of groundwater at the down gradient EPA CCR Rule and ASD monitoring wells.

The results of the major ion analysis, particularly the Piper diagrams, indicate that the overall chemistry of groundwater at the down gradient compliance monitoring wells is distinct from the chemistry of the aqueous FGD waste. Moreover, the analysis indicates that aqueous FGD waste from the FGD Pond is not affecting the chemistry of the groundwater at the down gradient wells. Therefore, the major ion analysis results provide further supporting evidence to the results of analysis of key indicators that aqueous FGD waste from the FGD Pond is not responsible for the SSIs observed for calcium in groundwater at the down gradient EPA CCR Rule monitoring wells.

4.3 Ion Ratios

Ion ratios are useful for identifying separate source waters or for determining if a separate source water (e.g., concentrated aqueous FGD waste) is being added to groundwater along a flow path.[1] Data analyses of ion ratios are based on the premise that two constituents in groundwater with similar mobility will remain in the same relative concentrations during transport unless water from another source that has a significantly different ratio of the same constituents is mixed with the groundwater.[1] Consequently, the release of concentrated aqueous FGD waste to groundwater should result in relative concentrations (i.e., ion ratios) in groundwater at down gradient monitoring wells that are similar to those in the FGD waste stream even as the total concentrations of the constituents are diluted due to mixing with background groundwater during transport. Conversely, if ion ratios observed at the down gradient monitoring wells are similar to those observed at the background wells, this constitutes evidence that no other source water has been introduced to groundwater along the flow path. Highly mobile, non-reactive constituents such as boron, chloride, lithium, molybdenum and sulfate are the best candidates for use in ion ratio analyses.

Table 5 presents concentration ratios of sulfate/chloride and lithium/chloride for aqueous FGD waste stream samples collected from the FGD Pond, groundwater collected from the EPA CCR Rule monitoring wells and groundwater collected from the ASD monitoring wells. The table presents date-specific and average ion ratio values.

The average sulfate/chloride ratios for the groundwater samples collected from background EPA CCR Rule monitoring well MW-FGD-01 and up gradient ASD

monitoring well ASD-FGD-01 are 0.06 and 0.19, respectively, if all data are considered. It is noted, however, that the sulfate/chloride ratio in groundwater at AS-FGD-01 for November 2018 is anomalously high when compared to the other nine ratios calculated for groundwater at that location (1.47 versus 0.03 to 0.08). Consequently, the sulfate/chloride ratio in groundwater at AS-FGD-01 for November 2018 is considered highly suspect and a data outlier. Without including the November 2018 ratio, the average sulfate/chloride ratio for groundwater at AS-FGD-01 is 0.05, which is essentially the same as observed for groundwater at background EPA CCR Rule monitoring well MW-FGD-01.

The average sulfate/chloride ratios for groundwater at all of the EPA CCR Rule and ASD down gradient monitoring wells significantly exceed the values for background EPA CCR Rule monitoring well MW-FGD-01 and up gradient ASD monitoring well AS-FGD-01, indicating geochemical influence from source water in addition to background groundwater. The average sulfate/chloride ratios for groundwater at EPA CCR Rule monitoring wells MW-FGD-02 through MW-FGD-05 and ASD down gradient monitoring wells AS-FGD-02 and AS-FGD-03 significantly exceed the average value for the aqueous FGD waste. Therefore, the results of the sulfate/chloride ratio analysis indicate that the aqueous FGD waste stream has not discernibly affected the chemistry of groundwater at the locations of the down gradient EPA CCR Rule and ASD monitoring wells.

The average lithium/chloride ratios for the groundwater samples collected background EPA CCR Rule monitoring well MW-FGD-01 and up gradient ASD monitoring well ASD-FGD-01 range from 0.43 (AS-LF-01) to 0.54 (MW-FGD-01). The average lithium/chloride ratios for groundwater at all of the EPA CCR Rule and ASD down gradient monitoring wells fall below the range observed for background EPA CCR Rule monitoring well MW-FGD-01 and up gradient ASD monitoring well ASD-FGD-01, but significantly above the average ratio for the aqueous FGD waste. These results indicate possible geochemical influence from source water in addition to background groundwater at the down gradient EPA CCR Rule and ASD monitoring wells and/or that localized geochemical conditions have a more discernible effect on the geochemical signature of groundwater at the down gradient monitoring wells than the geochemistry of the background groundwater.

These observations are consistent with and supportive of the conclusions of the key indicators analysis presented in **Section 4.1**. Therefore, the results of the ion ratio

analysis provide supporting evidence that aqueous FGD waste from the FGD Pond is not responsible for the SSIs observed for calcium and chloride at the down gradient EPA CCR Rule compliance monitoring wells.

5.0 CONCLUSIONS

Several conclusions can be drawn from the ASD evaluation presented in the previous sections.

1. The aqueous FGD waste stream samples collected to date contained significantly elevated concentrations of boron (30,800 to 193,000 μg/L), but was not detected in any of the groundwater samples collected from the down gradient EPA CCR Rule compliance monitoring wells or ASD wells during the March 2020 Detection Monitoring event. Inasmuch as boron is essentially unreactive and highly mobile in natural groundwater, the absence of boron (a key indicator of unwashed FGD waste) in groundwater at the down gradient compliance monitoring wells during the March 2020 Detection Monitoring event is a key line of evidence supporting a conclusion that the SSIs for calcium at EPA CCR Rule compliance monitoring wells MW-FGD-02 and MW-FGD-04 are attributable to a source other than a release of aqueous FGD waste from the FGD Pond.
2. Monitoring wells MW-FGD-02, MW-FGD-03, MW-FGD-04 and MW-FGD-05 are located immediately adjacent to and hydraulically down gradient from the FGD Pond. The FGD Pond is constructed with a composite liner system consisting of an 18" thick low permeability compacted soil liner (1 x 10^{-5} cm/sec maximum permeability), which is overlain by a geosynthetic clay liner, which is in turn overlain by a 60-mil HDPE geomembrane liner. The HDPE liner was electronically leak tested after installation to verify the installed liner was free of installation defects and holes. No physical evidence of leakage (e.g., seeps around the perimeter berm) has been observed at the FGD Pond since its construction. These observations, as well as the lack of boron in groundwater at MW-FGD-02, MW-FGD-03, MW-FGD-04 and MW-FGD-05, while boron has been shown to be present in significantly elevated concentrations in the aqueous FGD waste, further support the conclusion that the SSIs for calcium based on the March 2020 Detection Monitoring data were not caused by a release of aqueous waste from the FGD Pond.
3. The graph of calcium concentrations versus time for groundwater samples collected from CCR compliance monitoring wells MW-FGD-01 through MW-FGD-05, as well as ASD monitoring wells AS-FGD-01 through AS-FGD-03, since the inception of monitoring at each well indicates that the concentrations of calcium in groundwater at most monitoring wells show relative stability over the period of monitoring. In contrast to the observed general trend, the concentrations of

calcium detected in groundwater at monitoring wells MW-FGD-02 and MW-FGD-05 show moderately increasing trends over the period of monitoring. It is noted that the calcium concentrations historically detected in the aqueous waste in the FGD Pond are 2 to 3 orders-of magnitude higher than the calcium concentrations reported in the down-gradient EPA CCR Rule monitoring wells. Consequently, a release of aqueous waste from the FGD Pond would be expected to manifest as substantial and sustained increases in calcium concentrations in groundwater at the down-gradient monitoring wells. However, such substantial and sustained increases in calcium concentrations have not been observed in groundwater at the down-gradient EPA CCR Rule monitoring wells. These observations further support the conclusion that the SSIs for calcium identified by statistical analysis of the groundwater quality data from the March 2020 Detection Monitoring event are attributable to a source other than a release of aqueous waste from the FGD Pond.

4. The results of the key indicators analysis provide strong evidence that the SSIs for calcium based on the March 2020 Detection Monitoring data are attributable to a source other than a release of aqueous FGD waste from the FGD Pond. In particular, the concentrations of calcium historically detected in the aqueous FGD waste are generally 2 to 3 orders-of-magnitude higher than the concentrations detected in groundwater at the EPA CCR Rule and ASD monitoring wells. Inasmuch as EPA CCR Rule compliance monitoring wells MW-FGD-02, MW-FGD-03, MW-FGD-04 and MW-FGD-05 are located immediately adjacent to and hydraulically down gradient of the FGD Pond, these observations, in addition to the lack of boron in groundwater at the down gradient monitoring wells (discussed above), further support the conclusion that the SSIs for calcium in groundwater at the wells were not caused by a release of aqueous FGD waste from the FGD Pond.
5. The results of the ion ratio analysis provide supporting evidence that aqueous FGD waste from the FGD Pond is not responsible for the SSIs observed for calcium at the down gradient EPA CCR Rule compliance monitoring wells. The results of the ion ratio analysis further indicate that the aqueous FGD waste stream has not discernibly affected the geochemistry of groundwater at the locations of the down gradient EPA CCR Rule and ASD monitoring wells. Moreover, the results indicate possible geochemical influence from a source of water in addition to background groundwater at the down gradient EPA CCR Rule and ASD monitoring wells. These observations are consistent with and supportive of the conclusions of the key indicators analysis.

6. The results of the major ion analysis, particularly the Piper diagrams, indicate that the overall chemistry of groundwater at the down gradient compliance monitoring wells is generally similar to that at the up-gradient EPA CCR Rule and ASD monitoring wells and is consistently distinct from the chemistry of the aqueous FGD waste. Moreover, the analysis indicates that aqueous FGD waste from the FGD Pond is not affecting the chemistry of the groundwater at the down gradient wells. Therefore, the major ion analysis results provide further supporting evidence to the results of analysis of key indicators that aqueous FGD waste from the FGD Pond is not responsible for the SSIs observed for calcium and chloride at the down gradient EPA CCR Rule monitoring wells.
7. The preponderance of the evidence from the key indicators analysis, major ions analysis and ion ratios analysis, as well as temporal trends in constituent concentrations, presented herein support the conclusion that aqueous FGD waste from the FGD Pond is not responsible for the SSIs observed for calcium at down gradient EPA CCR Rule monitoring wells MW-FGD-02 and MW-FGD-04.

The preceding information serves as the ASD prepared in accordance with 40 CFR 257.94(e)(2) and supports the position that the SSIs for calcium and chloride evident from statistical analysis of groundwater quality data collected during the August 2019 Detection Monitoring events are not due to a release from the FGD Pond at the site. Therefore, no further action (i.e., assessment monitoring) is warranted and the FGD Pond will remain in detection monitoring.

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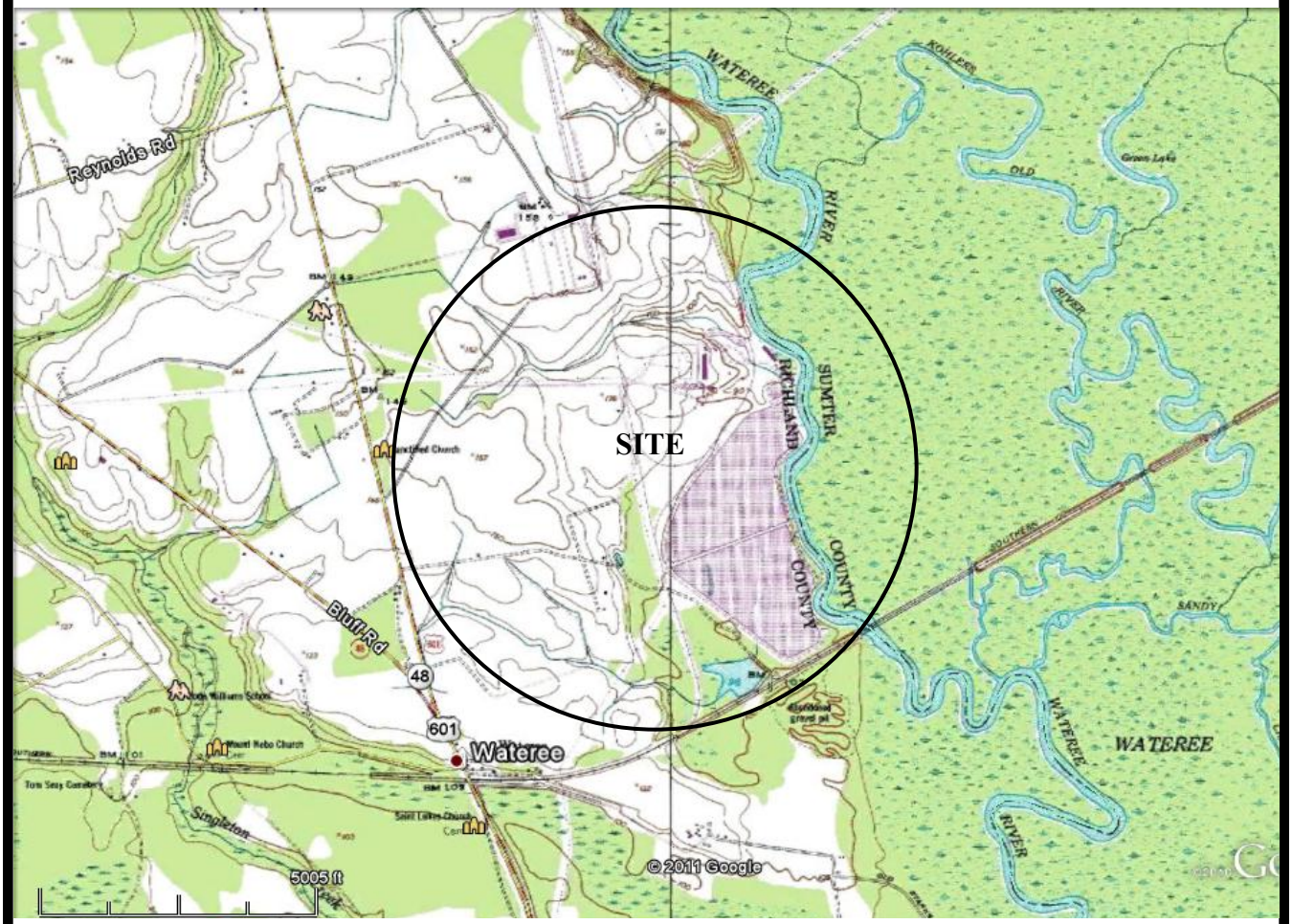
FIGURES

1 Site Location Map: Wateree FGD Pond
2 Site Map: Wateree Station FGD Pond
3 Total Calcium Isoconcentration Contour Map: March 2019
4 Groundwater Elevation Contour Map: March 2019
5 Piper Diagram: October 2017
6 Piper Diagram: November 2017
7 Piper Diagram: March 2018
8 Piper Diagram: September 2018
9 Piper Diagram: March 2019
10 Piper Diagram: August 2019
11 Piper Diagram: March 2020



N

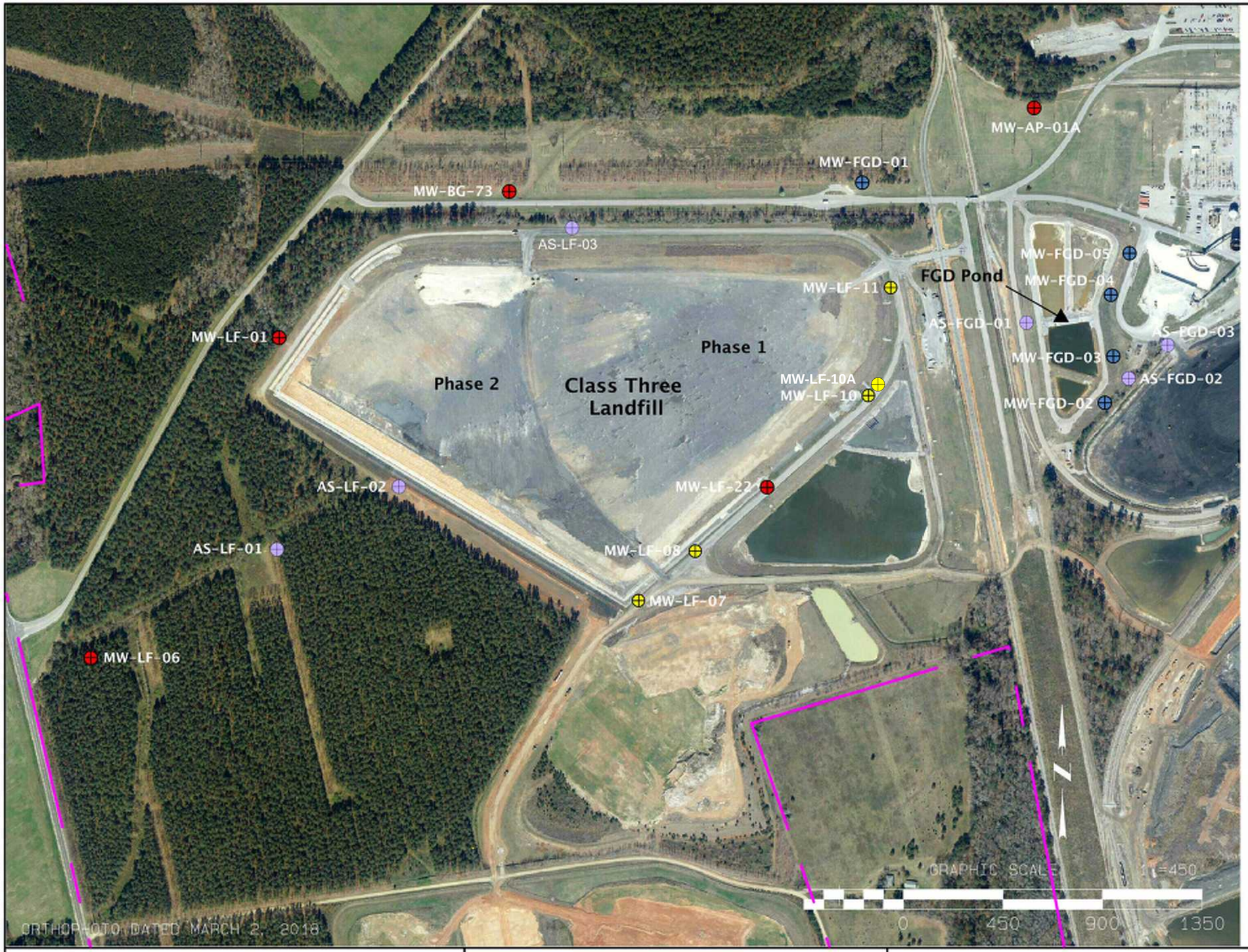
Source: USGS 7.5' Topographic Quadrangle Series
Wateree, and Poinsett State Park, SC

Nautilus Geologic Consulting, PLLC
11112 Branding Iron Place
Wendell, NC 27591
Office: (919) 366-3663
Cell: (919) 995-0363

SITE LOCATION MAP

DESC Wateree Station
Eastover, Richland County, South Carolina

Drawn by:	Reviewed by:	Project #:	Drawing #:	Figure No.
USGS		Scale: 1:24,000	Drawing Date: 01/22/2014	1



EPA CCR Rule Compliance Groundwater Monitoring Wells

Class Three Landfill

- Background and down gradient monitoring well
- Well used for down gradient water quality monitoring
- Alternate Source Demonstration monitoring well

FGD Waste Water Pond

- Background and down gradient monitoring well
- Alternate Source Demonstration monitoring well

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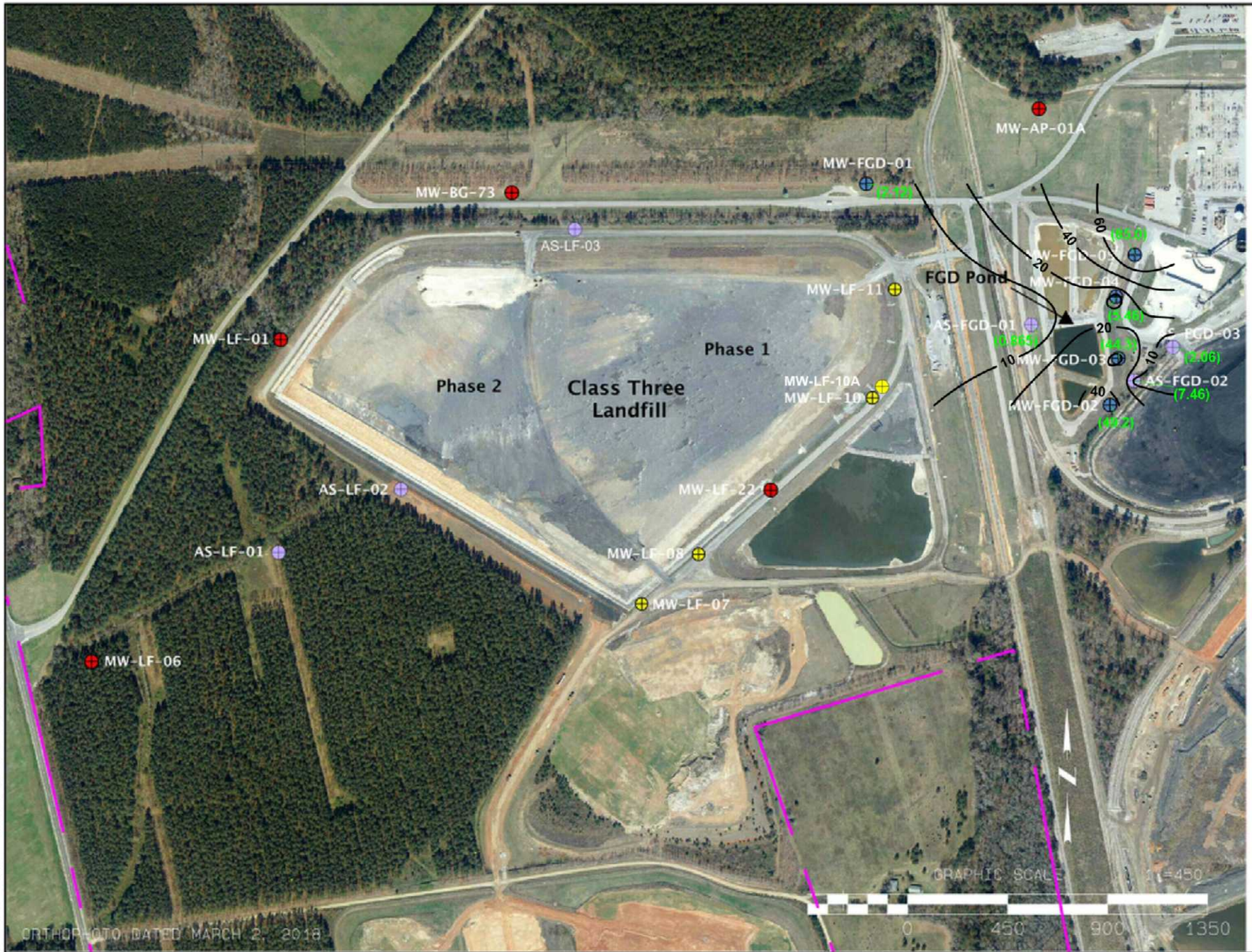
Nautilus Geologic Consulting, PLLC	DOMINION ENERGY SOUTH CAROLINA WATEREE STATION	CCR RULE COMPLIANCE GROUNDWATER MONITORING WELLS FOR LANDFILL AND FGD POND	JOB NUMBER SHEET 2



EPA CCR Rule Compliance Groundwater Monitoring Wells

Class Three Landfill

- Background and down gradient monitoring well
- Well used for down gradient water quality monitoring
- Alternate Source Demonstration monitoring well

FGD Waste Water Pond

- Background and down gradient monitoring well
- Alternate Source Demonstration monitoring well

(2.56) Total Calcium Concentration (mg/L)

20 Total Calcium Isoconcentration Contour (mg/L)

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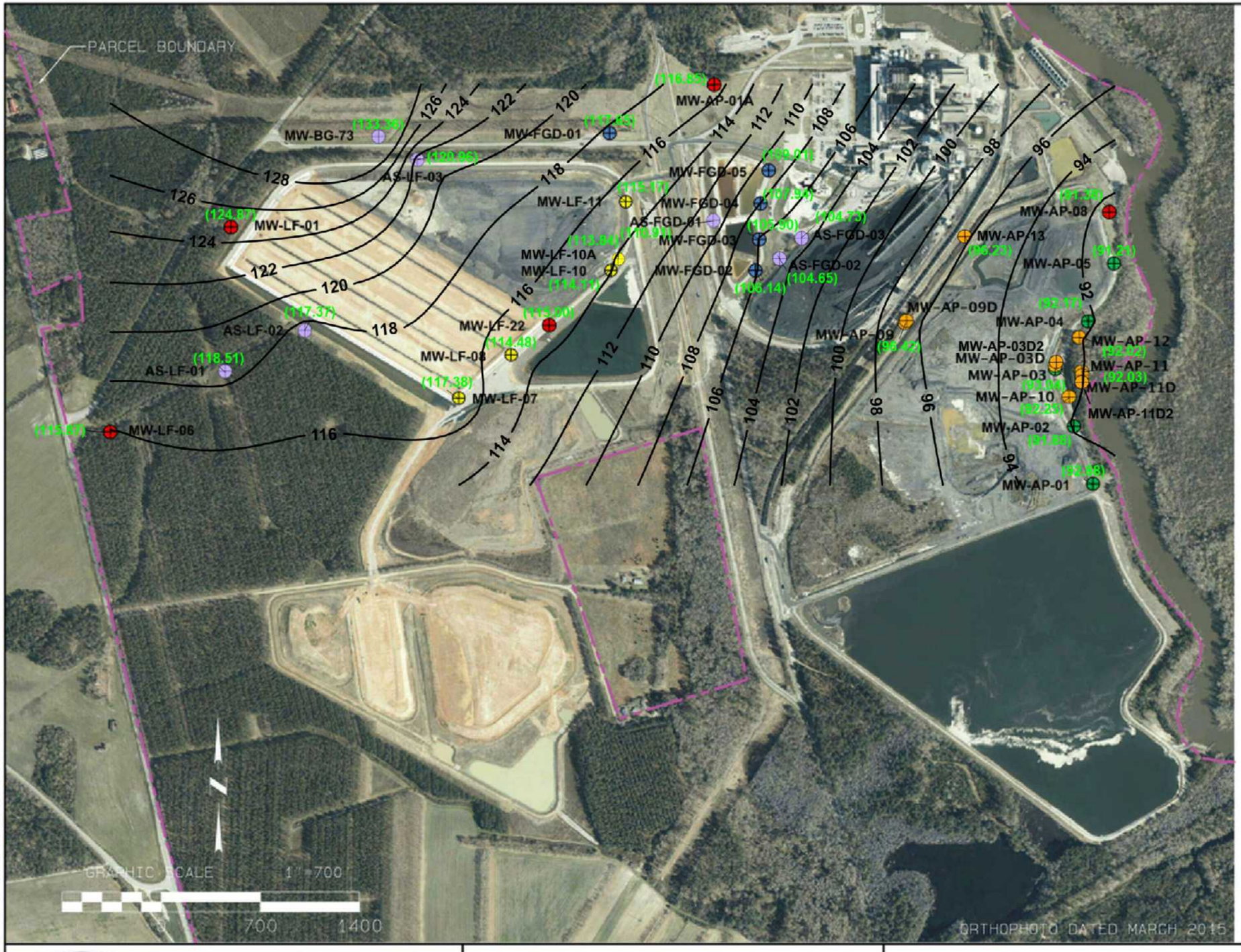
Nautilus Geologic Consulting, PLLC	DOMINION ENERGY SOUTH CAROLINA WATEREE STATION	**Total Calcium Isoconcentration Contour Map: March 2020**	JOB NUMBER SHEET 3



EPA CCR Rule Compliance Groundwater Monitoring Wells

Class Three Landfill

- Existing well used for background and down gradient water quality monitoring
- Well used for down gradient water quality monitoring
- Additional background monitoring well

FGD Wastewater Pond

- Background and down gradient monitoring wells
- Additional background monitoring well

Ash Pond 1

- Existing well used for background and down gradient water quality monitoring
- Well used for down gradient water quality monitoring
- Release Characterization monitoring well

(116.52) Groundwater Elevation (ft. MSL)

115 Groundwater Elevation Contour (ft. MSL)

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Nautilus Geologic Consulting, PLLC

DOMINION ENERGY SOUTH CAROLINA
WATEREE STATION

Groundwater Elevation Contour Map Shallow Surficial Aquifer: March 2020

JOB NUMBER

SHEET 4

Figure 5
Wateree Station FGD Pond October 2017

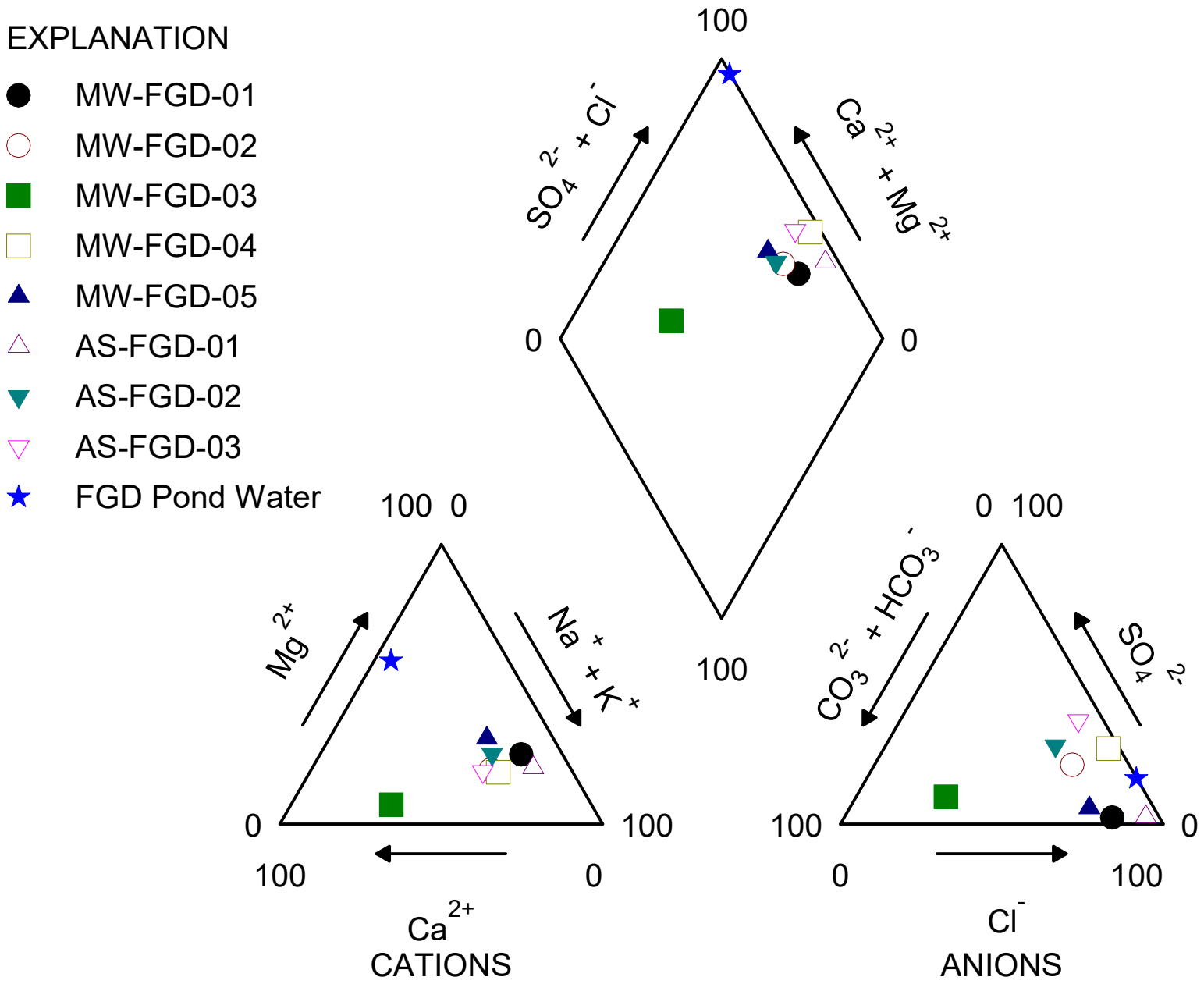


Figure 6
Wateree Station FGD Pond November 2017

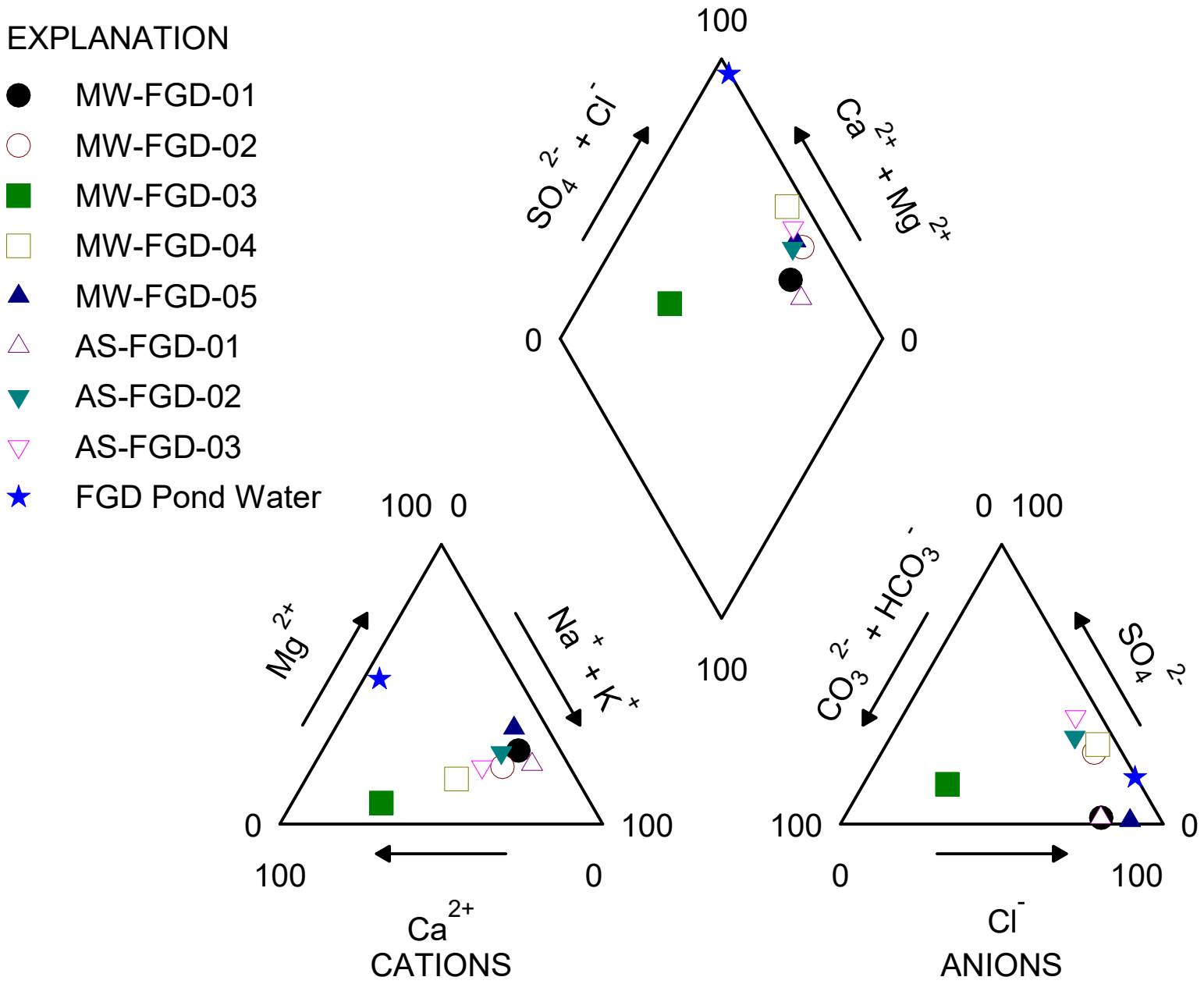


Figure 7
Piper Diagram Wateree Station FGD Pond March 2018

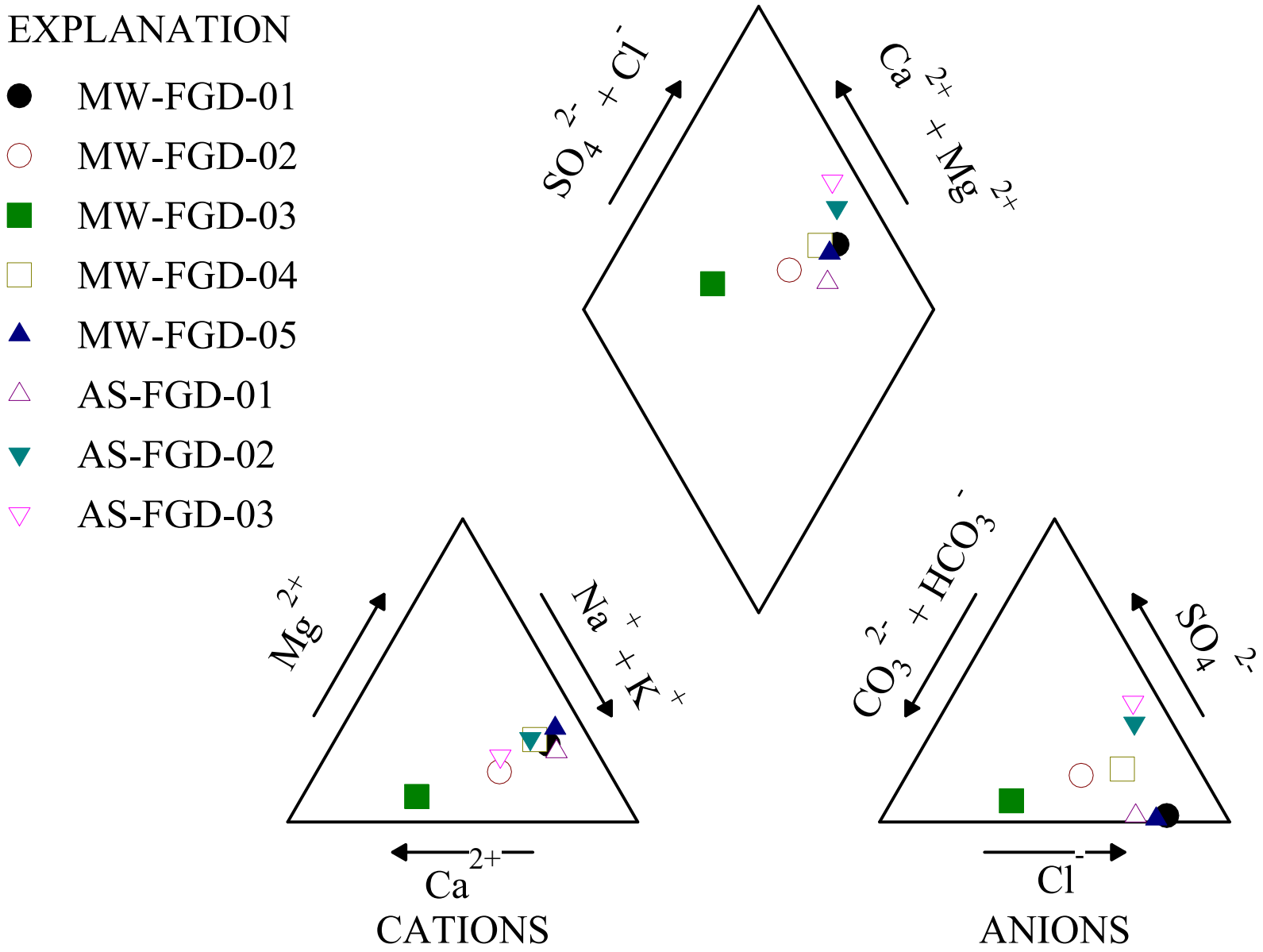
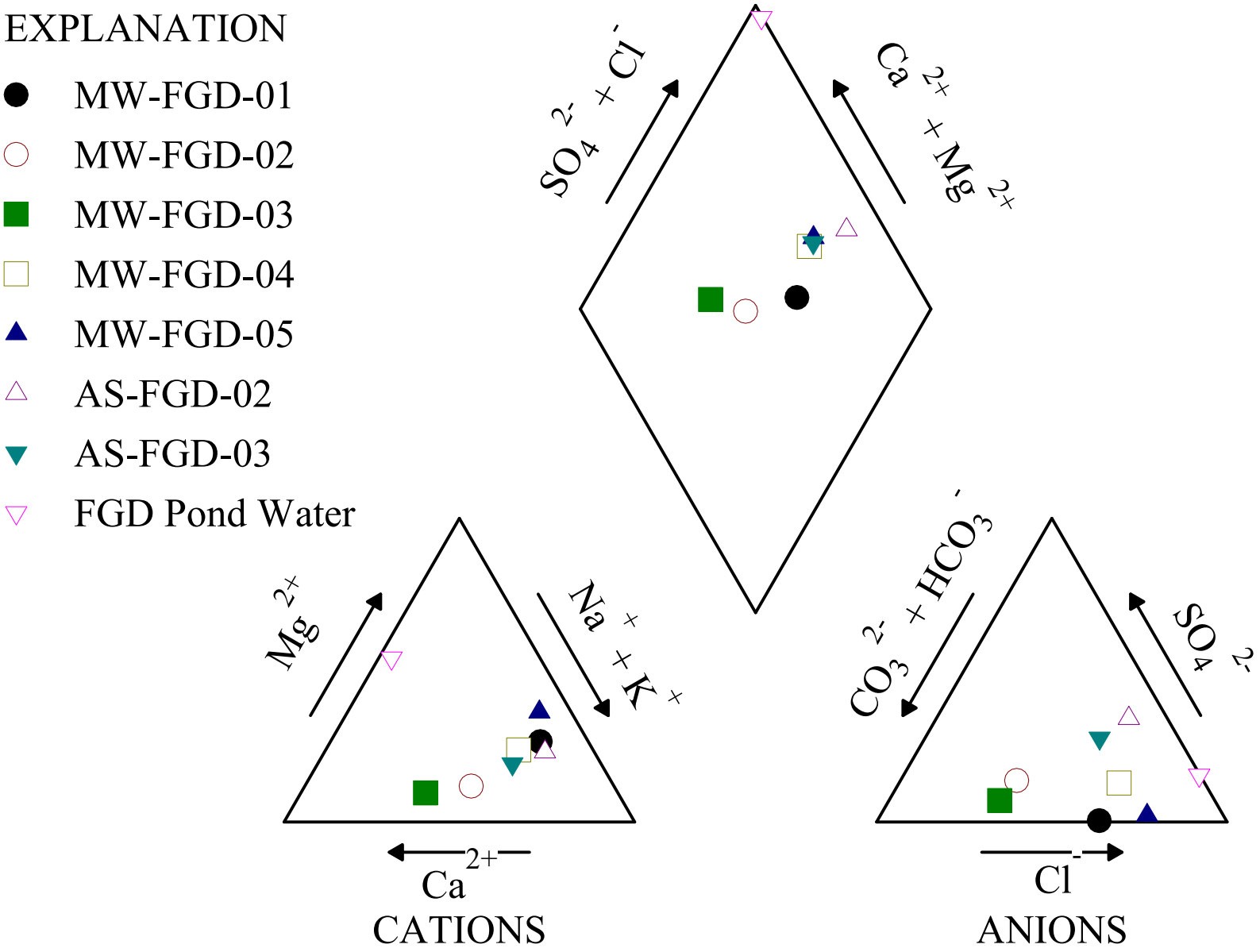


Figure 8
Wateree Station FGD Pond: September 2018



NOTE: FGD Pond water sample collected on 11/20/18.

FIGURE 9
Wateree Station FGD Pond: March 2019

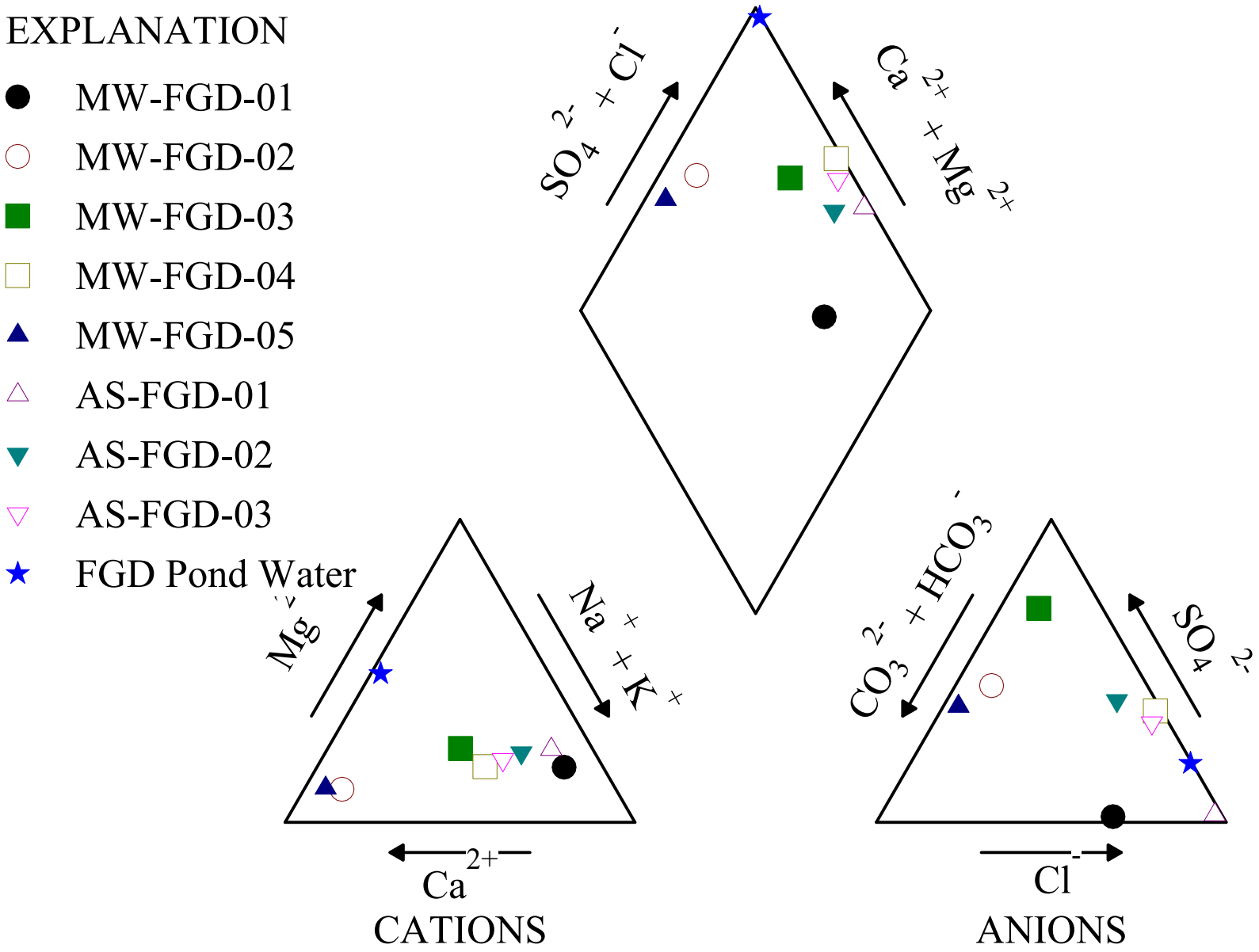


FIGURE 10
Wateree Station FGD Pond: August 2019

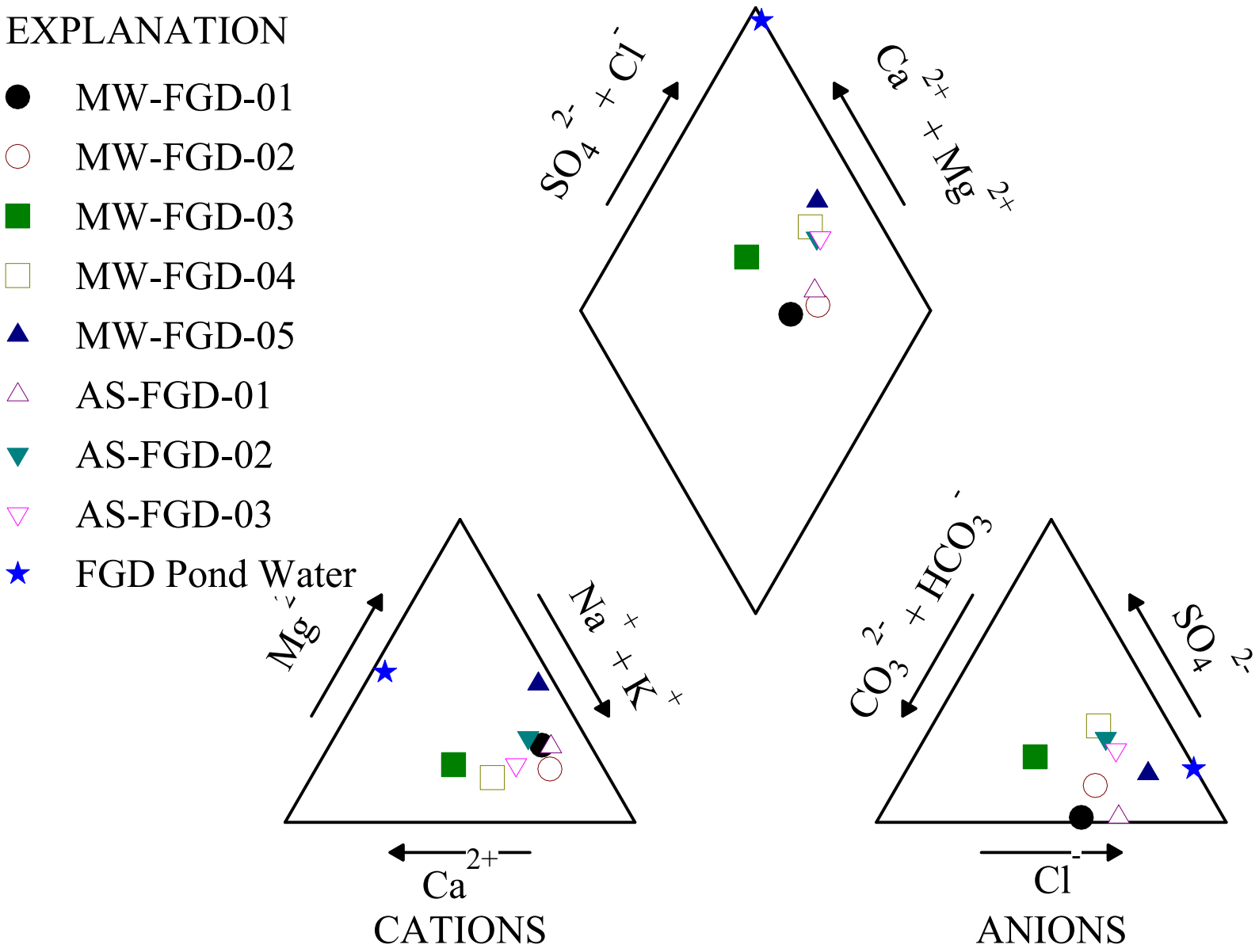
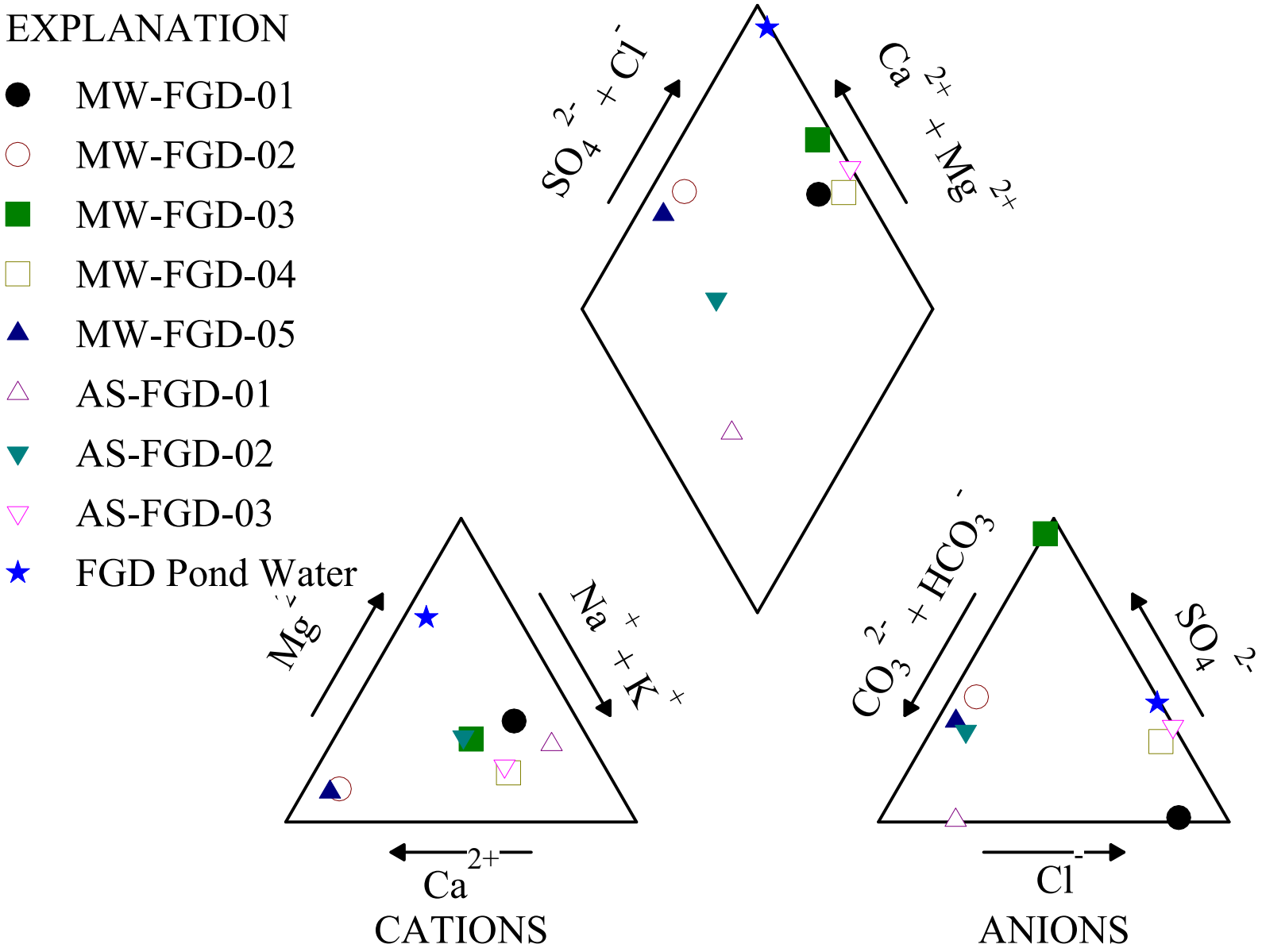


FIGURE 11
Wateree Station FGD Pond: March 2020



Nautilus Geologic Consulting, PLLC

TABLES

1 EPA CCR Rule Compliance Monitoring Well Construction Data and Specifications
2 Results of Field and Laboratory Analyses of Groundwater and Leachate Samples
3 Major Ions in Groundwater and FGD Pond Wastewater
4 Charge Balance of Major Ions in Groundwater and FGD Pond Wastewater
5 Ion Ratios in Groundwater and FGD Pond Wastewater

Table 1
EPA CCR Rule Compliance Monitoring Well Construction Data and Specifications
Dominion Energy South Carolina
Wateree Station FGD Pond

				Elevation Data			Test Boring Data		Monitoring Well Construction Data			
Monitoring Well ID	Boring Date	Northing	Easting	PVC Pipe Elev.	Ground Elev.	Stickup feet	Total Depth, ft.	Bottom Elevation	Top of Well Screen		Bottom of Well Screen	
									Depth, ft.	Elev.	Depth, ft.	Elev.
MW-FGD-01	3/21/2016	725119.037	2112576.513	139.15	135.98	3.17	27.0	108.98	17.00	118.98	27.00	108.98
MW-FGD-02	3/22/2016	724122.088	2113682.286	121.24	118.36	2.88	18.0	100.36	8.00	110.36	18.00	100.36
MW-FGD-03	3/22/2016	724333.559	2113719.923	123.30	120.52	2.78	21.5	99.02	8.00	112.52	18.00	102.52
MW-FGD-04	3/22/2016	724607.604	2113714.697	122.79	120.06	2.73	19.5	100.56	8.00	112.06	18.00	102.06
MW-FGD-05	3/21/2016	724803.15	2113792.503	123.36	120.51	2.85	21.5	99.01	6.00	114.51	16.00	104.51
AS-FGD-01	6/27/2017	724487.41	2113311.99	126.30	123.36	2.94	23.5	99.86	13.00	110.36	23.00	100.36
AS-FGD-02	6/27/2017	724232.05	2113781.63	120.43	117.63	2.80	23.5	94.13	13.00	104.63	23.00	94.63
AS-FGD–03	6/27/2017	724389.47	2113924.68	119.42	116.55	2.87	23.5	93.05	13.00	103.55	23.00	93.55

TABLE 2
RESULTS OF FIELD AND LABORATORY ANALYSES OF GROUNDWATER SAMPLES
EPA CCR RULE BACKGROUND AND COMPLIANCE GROUNDWATER MONITORING WELLS
Wateree Generating Station FGD Pond
Eastover, Richland County, South Carolina

	Groundwater Monitoring Indicator Parameters						40 CFR Part 257 Appendix III Detection Monitoring Parameters								40 CFR Part 257 Appendix IV Assessment Monitoring Constituents															
	Groundwater Elevation ft	ORP mV	DO mg/L	Specific conductance u mhos/cm	Temperature degrees C	Turbidity NTU 10	pH (lab) S.U. BG	pH (field) S.U. BG	Boron ug/L BG	Calcium ug/L BG	Chloride mg/L BG	Fluoride mg/L BG	Sulfate mg/L BG	TDS mg/L BG	Antimony ug/L 6 ug/L	Arsenic ug/L 10 ug/L	Barium ug/L 2000 ug/L	Beryllium ug/L 4 ug/L	Cadmium ug/L 5 ug/L	Chromium ug/L 100 ug/L	Cobalt ug/L 6 ug/L	Lead ug/L 15 ug/L	Lithium ug/L 40 ug/L	Mercury ug/L 2 ug/L	Molybdenum ug/L 100 ug/L	Radium 226 pCi/L 5 pCi/L	Radium 228 pCi/L 5 pCi/L	Radium 226 + 228 pCi/L 5 pCi/L	Selenium ug/L 50 ug/L	Thallium ug/L 2 ug/L
Wateree FGD Pond																													
MW-FGD-01																													
5/11/16	117.30	227.3	4.47	33	21.35	5.5	5.35	3.44	<1,000	359	3.54	<0.033	<0.5	32	<1.00	<1.00	35.3	<1.00	<1.00	<1.00	1.3	<1.00	<2.00	<0.2	<5.00	2.32	1.3	3.62	<5.00	<1.00
7/11/16	115.87	152.1	4.08	49	25.36	0.71	6.12	4.69	<1,000	753	6	<0.033	<0.5	27	<1.00	<1.00	71.4	<1.00	<1.00	<1.00	1.4	<1.00	<2.33	<0.2	<5.00	1.2	1.02	2.22	<5.00	<1.00
9/19/16	115.17	282.1	2.92	47	20.13	2.14	5.72	3.9	<1,000	803	7	<0.033	<0.5	33	<1.00	<1.00	79	<2.00	<1.00	<1.00	1.5	1	<2.33	<0.2	<5.00	1.36	1.68	3.04	<5.00	<1.00
11/15/16	115.02	260	3.07	62	14.59	5.8	5.07	4.57	<1,000	821	7.21	<0.033	<0.5	49	<1.00	<1.00	78.9	<2.00	<1.00	<1.00	1.3	1	2.33	<0.2	<1.00	1.98	2.26	4.24	<5.00	<1.00
1/17/17	116.28	166.2	2.29	53	19.91	2.23	4.66	4.68	<1,000	962	0.76	<0.033	<0.5	29	<1.00	1.2	99.5	<2.00	<1.00	<1.00	1.4	1.2	2.53	<0.2	<1.00	1.5	1.95	3.45	<5.00	<1.00
3/20/17	115.85	288.7	3.07	47	18.11	2.6	5.26	4.35	<1,000	832	5.83	<0.033	<0.5	31	<1.00	<1.00	82.3	<2.00	<1.00	<1.00	1.2	1.1	2.4	<0.2	<1.00	1.42	1.32	2.74	<5.00	<1.00
5/22/17	116.15	289.1	2.89	54	18.61	3.6	4.87	4.33	<1,000	669	4.77	<0.033	<0.5	35	<1.00	<1.00	66	<2.00	<1.00	<1.00	1	1.64	<2.00	<0.2	<1.00	0.572	<1.32	0.572	<5.00	<1.00
7/24/17	116.07	316.6	3.48	66	17.32	4.7	4.86	4.47	<1,000	1,909	5.84	0.0358	<0.5	22	<1.00	<1.00	78.2	<2.00	<1.00	1.2	1.1	1.2	2.13	<0.2	<1.00	1.36	<1.88	1.36	<5.00	<1.00
9/27/17	114.98	312.6	3.58	37	19.34	3.2	4.89	4.51	<1,000	638	5.88	<0.033	<0.5	29																
11/1/17	114.51	260.4	2.51	53	17.99	1.1		4.27		925	7.01		<0.5																	
11/14/17	114.36	310.7	3.43	45	16.26	1.5		4.25		786	6.53		<0.5																	
3/5/18	114.17	304	3.06	57	15.42	1.9	4.81	4.33	<1,000	820	7.12	<0.2	<0.5	47	<1.00	<1.00	84.1	<2.00	<1.00	<1.00	1.2	1.1	2.1	<0.2	<1.00				<5.00	<1.00
9/10/18	114.10	300.1	2.88	63	23.77	2.2	5.62	4.62	23.5	982	7.55	<0.025	<0.129	36	<0.09	<0.292	102	0.45	<0.035	<0.345	1.4	1.3	2.1	<0.071	<0.111				<2.06	<0.071
11/20/18	115.19	8.1	3.53	56	18.08	8.03		4.69	<50.0	<5,000	8.4	<0.1	<1.00	30																
3/6/19	117.23	178.6	4.68	66	9.29	5.4	5.75	4.8	<38.458	1,070	6.79	<0.1	<0.5	41									3.7							
5/1/19	116.31	356.1	4.87	54.8	20	2.8	5.23	4.7		783	5.61		<0.5	35																
8/27/19	114.20	229.2	3.64	60	14.19	2.8	5.22	3.81	<200	855	6.71	<0.10	<0.50	31									2							
11/18/19	113.37	327.4	3.13	46.5	18	4.1		4.86		995	6.98		<0.50	5																
3/10/20	117.65	244.8	3.79	82.9	18.8	5.14	5.11	4.64	<200	2,120	10.8	<0.10	<0.50	52									3.75							
5/26/20	115.66	283.6	3.95	44.4	18.4	0.8		3.89		962																				
MW-FGD-02																														
5/11/16	111.72	158.2	2.11	141	19.53	0.7	6.12	4.49	<1,000	6,350	14.7	0.0604	26.6	91	<1.00	<1.00	45	<1.00	<1.00	<1.00	<1.00	1.1	<2.00	<0.2	<5.00	2.04	2.67	4.71	<5.00	<1.00
7/12/16	103.38	210.6	2.3	79.5	20.6	0.4	5.59	4.19	<1,000	4,510	17	0.051	2.2	66	<1.00	<1.00	124	<1.00	<1.00	<1.00	2.6	1.8	3.67	<0.2	<5.00	1.44	0.946	2.386	<5.00	<1.00
9/20/16	105.34	267.3	2.82	74	21.65	0.7	5.55	4.83	<1,000	3,600	9.36	<0.033	5.85	55	<1.00	<1.00	57.1	<2.00	<1.00	<1.00	1.2	1	2.24	<0.2	<5.00	0.48	<2.03	0.48	<5.00	<1.00
11/16/16	105.14	146	2.55	83	19.94	0.9	5.3	5.34	<1,000	3,460	9.32	<0.033	5.55	60	<1.00	<1.00	68.3	<2.00	<1.00	<1.00	1.1	<1.00	2.26	<0.2	<1.00	0.754	2.05	2.804	<5.00	<1.00
1/18/17	105.08	165.8	3.73	270	20.85	2.5	5.9	5.67	<1,000	27,000	12.22	<0.033	49.25	119	<1.00	1.3	54.4	<2.00	<1.00	<1.00	1	1.4	<2.00	<0.2	<1.00	0.627	<1.96	0.627	18.3	<1.00
3/21/17	104.92	218.1	3.1	66	19.07	4.7	5.71	4.8	<1,000	5,320	7.6	<0.033	5.08	57	<1.00	<1.00	80.2	<2.00	<1.00	1.3	<1.00	<1.00	2.19	<0.2	<1.00	<0.384	<0.598	<0.982	<5.00	<1.00
5/23/17	105.13	170.2	2.33	80	18.72	3.1	5.33	4.86	<1,000	5,503	7.3	<0.033	5.8	56	<1.00	<1.00	36.9	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	<0.351	<1.59	<1.941	<5.00	<1.00
7/26/17	105.12	236.8	2.54	70	18.93	2.1	5.03	4.5	<1,000	2,915	6.99	<0.033	3.57	39	<1.00	<1.00	74.1	<2.00	<1.00	<1.00	<1.00	<1.00	2.49	<0.2	<1.00	0.946	4.49	5.436	<5.00	<1.00
9/27/17	104.97	252.6	2.4	60	21.92	4.1	5.16	4.88	<1,000	3,498	7.06	<0.033	4.56	46																
11/1/17	104.82	243.5	1.91	61	19.68	1.7		4.43		1,920	7.04		3.18																	
11/14/17	104.77	241.3	1.83	59	18.96	1.5		4.56		1,802	6.86		3.6																	
3/5/18	104.54	291.9	1.72	142	18.79	1	5.39	4.97	<1,000	2,850	6.39	<0.2	2.66	45																
9/10/18	104.55	132.7	1.49	96	17.9	1.1	5.77	4.64	<21.9	4,600	6.3	<0.025	3.5	47																
11/21/18	104.86	250.3	7.48	311	20.2	2.99		6.12	51.0	42,000	12	<0.1	68	190																
3/6/19	105.22	129.6	7.23	250	11.29	2.8	6.18	5.88	<38.458	43,500	8.74	<0.1	51.4	161									<2.00							
5/1/19	105.01	354.5	1.89	81.1	21.2	1.4	5.39	5.04		3,910	7.01		6.89	56																
8/28/19	104.64	341.2	1.77	54.4	22.4	2.69	5.08	4.65	<200	1,220	7.15	<0.10	2.08	28									2.3							
3/10/20	106.14	178.2	4.35	297.4	16.9	4.15	6.11	5.94	<200	49,200	6.68	<0.10	50.4	179									<2.00							
5/27/20	105.03	345.6	1.64	69.5	20	3.2		4.37		2,720																				
MW-FGD-03																														
5/12/16	111.98	126.9	0.79	434	19.26	5.1	6.09	5.9	<1,000	50,400	18.7	0.083	123	291	<1.00	<1.00	76.6	<1.00	<1.00	<1.00	2.5	<1.00	<2.00	<0.2	<5.00	2.45	1.56	4.01	<5.00	<1.00
7/12/16	104.99	-38	0.6	226.7	24.4	53.6	6.6	6.48	<1,000	31,600	8.4	0.142	28	144.5	<1.00	1.5	40	<1.00	<1.00	1.9	<1.00	<1.00	<2.00	<0.2	<5.00	0.496	-0.355	0.141	<5.00	<1.00
9/20/16	105.98	130.1	1.27	130	22.63	8.9	6.46	5.89	<1,000	16,200	9.63	0.07	11.2	82	<1.00	1	29.4	<2.00	<1.00	1	<1.00	<1.00	<2.00	<0.2	<5.00	0.716	<1.50	0.716	<5.00	<1.00
11/16/16	105.77	98	0.63	136	18.39	9.5	6.25	6.35	<1,000	14,600	8.03	0.13	6.27	75	<1.00	<1.00	26	<2.00	<1.00	1	<1.00	<1.00	<2.00	<0.2	<1.00	0.811	2.51	3.321	<5.00	<1.00
1/18/17	105.77	161	2.66	138	22.61	8.6	6.09	5.73	<1,000	12,800	8.76	0.0662	8.91	68	<1.00	1.4	26.4	<2.00	<1.00	1	<1.00	<1.00	<2.00	<0.2	<1.00	0.746	4.55	5.296	<5.00	<1.00
3/21/17	105.65	182.1	2.62	168	22.88	9	5.58	5.77	<1,000	16,400	8.73	0.0711	35.3	111	<1.00	<1.00	44.5	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.371	<0.457	0.371	<5.00	<1.00
5/23/17	105.87	121.6	2.81	140	19.77	8.23	6.22	5.54	<1,000	14,300	7.9	0.0622	22	95	<1.00	<1.00	34.9	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	<0.299	<1.25	<1.549	<5.00	<1.00
7/26/17	105.81	201.8	2.82	110	19.38	91.4	6.02	5.27	<1,000	12,920	8.49	0.0499	16.97	75	<1.00	<1.00	42	<2.00	<1.00	2.3	<1.00	1.1	<2.00	<0.2	<1.00	<0.348	4.65	4.65	<5.00	<1.00
9/27/17	105.61	208	2.23	81	25.77	9	5.91	5.55	<1,000	8,778	7.51	<0.033	4.28	61																
11/1/17	105.44	190.4	2.39	85	21.41	8.4		5.3		9,200	7.24		3.46																	
11/14/17	105.39	235.1	2.45	94	15.87	8.4		5.67		12,290	7.14		5.25																	
3/5/18	105.20	222	2.5	150	19.82	8.4	6.37	5.74	<1,000	8,270	6.88	<0.2	1.89	57																
9/10/18	105.21	174.1	4.62	93	21.31	6.9	6.21	5.41	<21.9	7,190	6.69	<0.025	2.02	165																
11/21/18	105.48	149.9	8.21	94	22.11	7.23		6.13	<50.0	9,800	7.7	<0.1	4.5	47																
3/6/19	105.89	149.1	4.37	278	11.59	10	5.95	5.43	<38.458	17,900	8.78	<0.1	75.4	131									<2.00							
5/1/19	105.86	270.6	3.21	253.7	26.4	8.6	5.92	5.5		14,600	8.99		69.7	156																
8/28/19	105.22	280.6	2.51	78.1	24.1	8.95	5.78	5.34	<200	5,210	7	<0.10	5.92	51									0.81 J							
11/19/19	105.06	310.5	3.2	59	17	8.9		5.4		4,490	6.51		2.35	46																
3/10/20	105.90	199.1	2.67	6.79	20.1	9.99	5.58	5.45	<200	44,300	<0.50	7.66	269	421									0.77 J							
MW-FGD-04																														
5/12/16	112.54	178.5	1.99	62	19.36	1.4	5.05	4.61	<1,000	3,120	9.96	0.0644	14.4	48	<1.00	<1.00	95.3	<1.00	<1.00	<1.00	<1.00	1.3	<2.00	<0.2	8.1	1.93	3.79	5.72	<5.00	<1.00
7/12/16	107.48	252.5	0.51	51.7	21.3	1.5	5.37	3.75	<1,000	2,820	8.9	0.054	6.2	36	<1.00	<1.00	91.2	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<5.00	0.969	1.9	2.869	<5.00	<1.00
9/20/16	107.54	320	1.83	54	22.41	0.7	5.14	4.33	<1,000	2,160	6.13	<0.033	5.41	25	<1.00	<1.00	70.4	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<5.00	0.674	<1.91	0.674	<5.00	<1.00
11/16/16	107.28	210	2.86	63	20.03	1.1	4.66	4.87	<1,000	1,730	6.55	<0.033	3.72	33	<1.00	<1.00	62.1	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.476	<1.29	0.476	<5.00	<1.00
1/18/17	107.51	254	1.82	59	20.09	2.4	4.65	4.82	<1,000	2,540	8.08	0.0479	4.7	28	<1.00	1.3	74.6	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.35	1.72	2.07	<5.00	<1.00
3/21/17	107.36	296.9	1.39	51	19.16	2.9	5.55	4.2	<1,000	2,830	7.35	0.073	3.65	39	<1.00	<1.00	79.6	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.661	2.02	2.681	<5.00	<1.00
5/23/17	107.68	229.8	1.24	61	18.44	1.8	4.55	4.04	<1,000	2,400	8.7	0.0363	4.2	42	<1.00	<1.00	83.3	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.398	2.02	2.418	<5.00	<1.00
7/26/17	107.51	253.7	1.42	63	19.01	2.1	4.71	4.18	<1,000	2,507	6.9	0.0421	4.75	29	<1.00	<1.00	75.4	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	<0.2	<1.00	0.609	<1.86	0.609	<5.00	<1.00
9/28/17	107.10	263.2	1.16	51	20.51	1.8	4.68	4.36	<1,000	1,958	6.09	<0.033	4.03	33																
11/1/17	106.89	260	1.11	52	19.97	4.3		4.11		1,450	5.89		3.01																	
11/14/17	106.84	283.1	1.18	55	19.34	4.1		4.31		3,149	6.4		3.75																	
3/5/18	106.71	293	0.99	131	17.79	1.5	4.87	4.5	<1,000	913	5.73	<0.2	2.23	33																
9/10/18	106.76	318.1	0.76	54	21.36	2.3	4.88	3.91	<21.9	1,390	7.44	<0.025	2.06	46																
3/6/19	107.80	180.8	1.36	60	12.83	4	4.76	4.52	<38.458	2,560	4.89	<0.1	3.96	24									<2.00							
5/1/19	107.69	379.4	2.14	62.3	21	1.4		4.51		2,000																				
8/28/19	106.69	241.7	0.85	53	17.14	2.7	4.72	3.78	<200	1,980	5.52	<0.10	5	36									1.10 J							
11/19/19	106.24	335.9	1.89	40.3	21.1	2.01		4.62		1,280	5.07		2.1	31																
3/10/20	107.94	238.4	0.83	133.3	19	4.39	4.96	4.74	<200	5,460	18.8	<0.10	10	69									1.045 J							
5/27/20	107.29	349.7	0.93	65.7	20.8	5.4		4.08		3,520																				

	Groundwater Monitoring Indicator Parameters						40 CFR Part 257 Appendix III Detection Monitoring Parameters								40 CFR Part 257 Appendix IV Assessment Monitoring Constituents													
	Groundwater Elevation ft	ORP mV	DO mg/L	Specific conductance u mhos/cm	Temperature degrees C	Turbidity NTU 10	pH (lab) S.U. BG	pH (field) S.U. BG	Boron ug/L BG	Calcium ug/L BG	Chloride mg/L BG	Fluoride mg/L BG	Sulfate mg/L BG	TDS mg/L BG	Antimony ug/L 6 ug/L	Arsenic ug/L 10 ug/L	Barium ug/L 2000 ug/L	Beryllium ug/L 4 ug/L	Cadmium ug/L 5 ug/L	Chromium ug/L 100 ug/L	Cobalt ug/L 6 ug/L	Lead ug/L 15 ug/L	Lithium ug/L 40 ug/L	Mercury ug/L 2 ug/L	Molybdenum ug/L 100 ug/L	Radium 226 pCi/L 5 pCi/L	Radium 228 pCi/L 5 pCi/L	Radium 226 + 228 pCi/L 5 pCi/L	Selenium ug/L 50 ug/L	Thallium ug/L 2 ug/L
MW-FGD-05																													
5/12/16	112.58	185	0.66	85	20.14	1.1	4.9	4.55	<1,000	2,100	10.4	0.0852	4.6	45	<1.00	<1.00	101	<1.00	<1.00	<1.00	2	<1.00	2.26	<0.2	<5.00	1.89	1.71	3.6	<5.00	<1.00
7/11/16	108.32	205	0.25	60.8	23.6	1.6	4.97	4.25	<1,000	652	9.7	0.0485	0.56	43	<1.00	<1.00	117	<1.00	<1.00	<1.00	1.6	<1.00	2.13	<0.2	<5.00	1.82	4.72	6.54	<5.00	<1.00
9/19/16	108.13	215.1	0.21	74	23.76	0.8	5.25	4.57	<1,000	686	10.4	<0.033	<0.5	45	<1.00	<1.00	115	<2.00	<1.00	<1.00	1.4	1.9	2.56	0.21	<5.00	0.863	<1.68	0.863	<5.00	<1.00
11/16/16	107.81	209	0.43	104	24.94	1.4	4.97	5.1	<1,000	2,610	12	<0.033	0.977	51	<1.00	<1.00	106	<2.00	<1.00	<1.00	1.4	<1.00	2.33	0.26	<1.00	1.66	2.95	4.61	<5.00	<1.00
1/18/17	108.34	193	0.53	86	20.36	5.2	4.99	4.92	<1,000	1,460	12.99	0.0359	1.48	45	<1.00	1.1	127	<2.00	<1.00	<1.00	1.6	1.5	2.21	<0.2	<1.00	1.66	3.91	5.57	<5.00	<1.00
3/21/17	108.00	277.3	1.03	73	19.13	4.8	5.68	4.33	<1,000	822	13.3	0.036	<0.5	48	<1.00	<1.00	101	<2.00	<1.00	<1.00	1.3	1.6	2.09	0.2	<1.00	1.15	2.95	4.1	<5.00	<1.00
5/23/17	108.44	224.7	1.18	86	18.04	1.7	5.09	4.5	<1,000	4,016	12	<0.033	1.97	52	<1.00	<1.00	89.4	<2.00	<1.00	<1.00	<1.00	<1.00	<2.00	0.51	<1.00	0.744	1.94	2.684	<5.00	<1.00
7/26/17	108.21	90.9	1.11	180	19.86	3.1	5.92	5.48	<1,000	23,470	12.16	0.0406	16.06	98	<1.00	<1.00	74.5	<2.00	<1.00	1.4	<1.00	1	<2.00	0.385	<1.00	0.46	<2.12	0.46	<5.00	<1.00
9/28/17	107.75	319.4	1.78	85	21.73	5.1	5.21	4.99	<1,000	5,429	13.9	<0.033	2.92	53																
11/1/17	107.44	137	0.75	94	19.88	5		4.73		1,380	13.9		<0.5																	
11/14/17	107.39	304.4	1.32	75	19.28	4.2		4.46		1,151	13.6		<0.5																	
3/5/18	107.41	302	1.2	124	18.16	5.5	5.19	4.77	<1,000	1,030	14.8	<0.2	<0.5	60																
9/10/18	107.54	191.9	1.27	115	22.34	1.6		4.54	<21.9	1,260	15.1	<0.025	0.58	61																
11/21/18	108.07	305	1.5	262	20.73	1.49		5.99	<50.0	30,000	13	<0.1	26	130																
3/6/19	108.67	132.7	4.51	359	9.65	8.4	6.57	6.17	<38.458	86,100	6.58	<0.1	78.4	270									<2.00							
5/1/19	108.48	547	1.55	208.1	21.9	8.1	5.45	5.44		1,300			1.53	70																
8/28/19	107.24	228.4	1.58	92	17.54	1.8	5.11	4.09	<200	621	15.3	<0.10	4.78	34									1.90 J							
11/19/19	106.84	293.8	1.4	122.4	17.9	6.9		5.68		4,820	13.6		20.5	90																
3/10/20	109.01	172	2.72	516.6	19.5	7.46	6.32	6.48	<200	85,000	7.02	<0.10	57.7	265									<2.00							
AS-FGD-01																														
7/25/17	110.45	182.5	5.23	56	19.11	6.9	5.1	4.65	<1,000	1,067	6.33	0.0485	<0.5	42	<1.00	<1.00	91.4	<2.00	<1.00	1	2.6	<1.00	3.43	<0.2	<1.00	1.23	<2.08	1.23	<5.00	<1.00
9/27/17	109.98	264.5	3.76	45	21.36	7.1		4.4	<1,000	921																				
10/11/17	109.84	305.4	3.67	47	21.22	3.1		4.34	<1,000	705	6.54	<0.5	<0.5	28	<1.00	<1.00	82.1	<2.00	<1.00	<1.00	2.2	<1.00	2.9	<0.2	<1.00				<5.00	<1.00
11/1/17	109.59	221.2	4.09	48	18.61	2.8		4.47	<1,000	824	6.65	<0.033	<0.5	96	<1.00	<1.00	90.6	<2.00	<1.00	1	2.2	<1.00	4	<0.2	<1.00				<5.00	<1.00
11/14/17	109.56	299	4.61	47	18.96	3.6		4.52	<1,000	743	6.46		<0.5	45.5	<1.00	<1.00	88.5	<2.00	<1.00	<1.00	2.2	1	<2.00	<0.2	<1.00				<5.00	<1.00
3/5/18	109.32	275	4.37	125	18.24	3.1	5.22	4.69	<1,000	732	6.62	0.2	<0.5	49																
9/11/18	109.39																													
11/20/18	109.82	-32.2	5.14	53	21.59	4.46		5.93	<50.0	<5,000	7.5	<0.1	11	31	<20.0	<15.0	93	<5.00	<5.00	<10.0	<25.0	<10.0		<0.2	<40.0				<20.0	<50.0
3/6/19	110.99	187.7	5.7	58	13.57	3.4	4.81	4.4	<38.458	844	6.96	<0.1	<0.5	20									2.8							
5/1/19	110.83	223.4	4.81	49	17.22	1.2	5.17	4.38		783	6.96		<0.5	42																
8/27/19	109.45	210	4.57	63	17.18	3.8	4.94	3.84	<200	778	7.19	<0.10	<0.50	472									3.2							
11/19/19	108.65	332.7	3.81	46.4	21	4.06		4.69		778	6.7		<0.50	38																
3/10/20	110.91	268	5.46	61	19.8	1.89	5.28	4.49	<200	865	7.3	<0.10	<0.50	48									3.21							
5/27/20	110.32	335.6	5.61	56.9	19.7	4.8		4.14		841																				
AS-FGD-02																														
7/25/17	104.65	171.9	1.48	102	19.51	7.4	5.31	4.96	<1,000	3,199	9.34	0.0664	9.01	56	<1.00	<1.00	94.5	<2.00	<1.00	1.3	10.9	<1.00	4.07	<0.2	<1.00	1.01	3.04	4.05	<5.00	<1.00
9/27/17	104.52	223.3	1.4	81	20.6	8.4		4.84	<1,000	2,974																				
10/11/17	104.46	244.2	1.65	89	20.91	1.6		4.83	<1,000	2,780	10.1	0.0379	7.27	44	<1.00	<1.00	86.2	<2.00	<1.00	<1.00	6.5	<1.00	2.4	<0.2	<1.00				<5.00	<1.00
11/1/17	104.39	228.3	1.47	74	18.24	6		4.57	<1,000	2,000	9.04		6.24	99	<1.00	<1.00	112	<2.00	<1.00	<1.00	7.3	1.8	4.2	<0.2	<1.00				<5.00	<1.00
11/14/17	104.38	302.4	2.02	69	16.63	8.2		4.46	<1,000	1,922	8.6		6.34	43	<1.00	<1.00	113	<2.00	<1.00	<1.00	7.3	2.1		<0.2	<1.00				<5.00	<1.00
3/6/18	104.12	364.3	3.26	71	15.22	2.6	4.89	4.57	<1,000	1,470	7.64	<0.2	5.97	47																
9/11/18	104.18	317.3	9.69	69	21.94	2.6	5.09	3.8	<21.9	1,170	7.21	<0.025	6.08	44	<0.09	<0.292	106	0.86	<0.035	0.345	6.3	2.2	3.1	<0.071	0.2				<2.06	0.087
3/6/19	104.63	157.7	2.77	89	13.12	3.6	5.3	5	<38.458	2,770	8.88	<0.1	9.93	46									3.1							
8/28/19	104.28	336.7	2.31	66.1	22.6	4.67	4.92	4.55	<200	1,370	7.88	<0.10	5.73	482									3.1							
3/10/20	104.65	202.5	3.07	139.4	18.6	5.46	6.1	4.96	<200	7,460	7.97	<0.10	32.4	71									2.3							
5/27/20	104.47	324.7	2.79	79.5	20.1	4.4		4.47		2,340																				
AS-FGD-03																														
7/25/17	103.58	207.1	1.26	65	21.46	2.1	4.75	4.19	<1,000	2,341	5.93	0.0428	5.99	34	<1.00	<1.00	57.7	<2.00	<1.00	1	1	<1.00	2	<0.2	<1.00	0.709	<2.91	3.619	<1.00	<1.00
9/27/17	104.42	268.2	0.76	57	24.18	5.9		4.26	<1,000	2,095																				
10/11/17	104.37	271.5	0.79	61	23.97	0.9		4.22	<1,000	2,080	6.07		5.51	29	<1.00	<1.00	51.8	<2.00	<1.00	<1.00	<1.00	1.1	<2.00	<0.2	<1.00				<5.00	<1.00
11/1/17	104.29	264.1	0.84	63	22.37	1.2		4.13	<1,000	2,080	6.15	<0.033	5.66	139	<1.00	<1.00	59.3	<2.00	<1.00	<1.00	<1.00	1.1	<2.00	<0.2	<1.00				<5.00	<1.00
11/14/17	104.25	297.5	0.87	59	21.91	2.6		4.43	<1,000	2,076	6.02		5.83	36	<1.00	<1.00	55.4	<2.00	<1.00	<1.00	<1.00	1.1		<0.2	<1.00				<5.00	<1.00
3/6/18	104.02	398.7	1.96	63	16.12	0.4	4.62	4.59	<1,000	2,200	6	<0.2	6.08	29																
9/11/18	104.16	311.5	5.69	58	25.01	0.8	5.12	3.7	<21.9	1,650	6.37	<0.025	4.78	54	<0.09	<0.292	49	<0.285	<0.035	<0.345	0.34	1	1.4	<0.071	<0.111				<2.06	<0.071
3/6/19	104.62	188.2	0.54	62	12.94	2.1	4.78	4.32	<38.458	2,000	7.48	<0.1	5.34	28									<2.00							
8/28/19	104.20	215.3	0.95	57	19.78	3.1	4.83	3.96	<200	1,520	6.9	<0.10	3.95	24									1.40 J							
3/10/20	104.73	184.3	0.65	62.2	19.5	4.67	4.78	4.47	<200	2,060	7.64	<0.10	4.77	23									1.28 J							
5/27/20	104.54	355.1	0.66	56.3	21	4.4		4.13		1,820																				
FGD Treatment Pond 1A																														
6/26/17									165,300	2,884,000					<10.0	<10.0	449	<2.00	153	<10.0	177	<10.0	185	0.48	41.2				301	<10.0
FGD Treatment Pond B																														
6/26/17									152,100	2,635,000					<10.0	<10.0	387	<2.00	88.8	<10.0	131	<10.0	184	<0.2	41.1				204	<10.0
10/10/17									193,000	2,100,000	8,606	28	2,276	16,855	<10.0	<10.0	278	<10.0	112	<10.0	298	<10.0	300	0.31	55.5				363	<10.0
11/14/17									133,500	2,100,000	7,177		1,961	13,600	<2.00	6.2	179	<8.00	85.3	<2.00	182	<4.00	345	<0.2	53.8				255	<4.00
11/20/18									180,000	2,200,000	8,500	<0.1	2,100	17,000	<20.0	<75.0	370	<5.00	160	<10.0	260	<10.0		2.7	<40.0				460	<50.0
3/6/19							7.23		90,200	1,651,000	5,243	14.5	1,732	11,960	<2.00	4.1	234	<2.00	93	<2.00	172	<2.00	182	<0.2	32.1				224	1.9
8/28/19							7.13		139,000	1,984,000	6,375	17.5	1,873	43	1.90 J	6.6	328	1.70 J	83.8	<5.0	136	<5.0	256	0.4	42.7				158	2.10 J
3/9/20							8.67		30,800	175,000	1,326	3.9	1,180	4,749	0.72 J	3.05	42.2	0.27 J	10.5	0.60 J	14.7	<1.0	71.1	1.6	25				27.9	0.48 J

Notes: Monitoring well locations highlighted in green are background monitoring locations.

Monitoring well locations highlighted in orange are down gradient compliance monitoring locations.

BG = Background; For those constituents for which a Maximum Contaminant Level (MCL) has not been established by the US EPA, detected concentrations in groundwater at compliance monitoring well locations are compared to concentrations detected in groundwater at background locations to determine if a statisticaly significant increase in concentrations above background levels is evident from the data.

Monitoring well locations highlited in yellow are down-gradient Alternate Source Determination wells.

TABLE 3
Major Ions in Groundwater and Treatment Pond Water
Alternate Source Demonstration
DESC Wateree Station FGD Pond
Eastover, Richland County, South Carolina

Sample Location	Sampling Date	Major Ion Concentrations (mg/L)							
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	TDS
MW-FGD-01	10/11/17	0.758	0.898	3.53	1.21	1.98	6.56	<0.50	14.39*
MW-FGD-02	10/11/17	2.35	1.11	5.18	1.44	3.47	7.01	3.28	22.45*
MW-FGD-03	10/11/17	9.44	0.637	4.62	1.41	27.2	7.04	3.32	42.79*
MW-FGD-04	10/11/17	1.51	0.733	3.51	1.5	<1.00	5.9	3.09	16.54*
MW-FGD-05	10/11/17	2.64	2.4	6.12	1.85	6.44	13.91	1.48	32.26*
AS-FGD-01	10/11/17	0.705	0.759	3.95	1.55	<1.00	6.54	<0.50	28
AS-FGD-02	10/11/17	2.78	1.94	6.19	2.73	6.44	10.1	7.27	44
AS-FGD-03	10/11/17	2.08	0.851	3.48	1.9	1.49	6.07	5.51	29
FGD Pond B Water	10/10/17	2,100	2,040	298	80.2	37.1	8,606	2,276	16,855

Sample Location	Sampling Date	Major Ion Concentrations (mg/L)							
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	TDS
MW-FGD-01	11/14/17	0.786	0.969	3.585	1.132	2.55	6.53	<0.50	14.78*
MW-FGD-02	11/14/17	1.802	1.076	5.081	1.301	1.53	6.86	3.6	20.64*
MW-FGD-03	11/14/17	12.29	0.867	5.123	1.558	28.1	7.14	5.25	49.09*
MW-FGD-04	11/14/17	3.149	0.825	3.63	1.558	1.02	6.4	3.75	19.92*
MW-FGD-05	11/14/17	1.151	2.311	6.061	1.705	2.55	13.6	<0.50	26.61*
AS-FGD-01	11/14/17	0.743	0.854	4.218	1.521	2.55	6.46	<0.50	45.5
AS-FGD-02	11/14/17	1.922	1.599	5.408	2.076	3.06	8.6	6.34	43
AS-FGD-03	11/14/17	2.076	0.949	3.499	1.858	1.53	6.02	5.83	36
FGD Pond B Water	11/14/17	2,100	1,532	237	65.1	65.3	7,177	1,961	13,600

Sample Location	Sampling Date	Major Ion Concentrations (mg/L)							
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	TDS
MW-FGD-01	3/5/18	0.820	0.995	3.83	1.22	2.55	7.12	<0.50	47
MW-FGD-02	3/5/18	2.850	0.918	4.78	1.21	7.65	6.39	2.66	45
MW-FGD-03	3/5/18	8.270	0.717	4.41	1.46	20.40	6.88	1.89	57
MW-FGD-04	3/5/18	0.913	0.949	3.14	1.06	3.57	5.73	2.23	33
MW-FGD-05	3/5/18	1.030	2.390	8.10	1.37	6.63	14.80	<0.50	60
AS-FGD-01	3/5/18	0.732	0.887	3.96	1.29	4.08	6.62	<0.50	49
AS-FGD-02	3/6/18	1.470	1.440	4.61	1.52	2.55	7.64	5.97	47
AS-FGD-03	3/6/18	2.200	1.020	3.47	1.63	1.53	6.00	6.08	29

Sample Location	Sampling Date	Major Ion Concentrations (mg/L)							
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	TDS
MW-FGD-01	9/10/18	0.982	1.16	4.2	1.3	7.45	7.55	<0.129	36
MW-FGD-02	9/10/18	4.6	0.811	5.38	1.34	17.4	6.3	3.5	47
MW-FGD-03	9/10/18	7.19	0.755	4.6	1.28	22.3	6.69	2.02	165
MW-FGD-04	9/10/18	1.39	0.94	3.31	1.41	4.97	7.44	2.06	46
MW-FGD-05	9/10/18	1.26	3.05	7.69	1.75	7.45	15.1	0.58	61
AS-FGD-02	9/11/18	1.17	1.17	5.24	1.35	2.48	7.21	6.08	44
AS-FGD-03	9/11/18	1.65	0.76	3.29	1.49	4.97	6.37	4.78	54
FGD Pond B Water	11/20/18	2,200	1,700	180	66	59	8,500	2,100	17000

Sample Location	Sampling Date	Major Ion Concentrations (mg/L)							
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	TDS
MW-FGD-01	3/6/19	1.07	1.06	4.66	5.37	5.5	6.79	<0.50	41
MW-FGD-02	3/6/19	43.5	3.66	5.02	3.22	64.5	8.74	51.4	161
MW-FGD-03	3/6/19	17.9	7.03	19.2	2.67	24.8	8.78	75.4	131
MW-FGD-04	3/6/19	2.56	0.844	3.15	1.76	<0.50	4.89	3.96	24
MW-FGD-05	3/6/19	86.1	7.15	5.1	3.33	149	6.58	78.4	270
AS-FGD-01	3/6/19	0.844	1.04	4.42	1.37	<0.50	6.96	<0.50	20
AS-FGD-02	3/6/19	2.77	1.84	7.43	1.82	3.5	8.88	9.93	46
AS-FGD-03	3/6/19	2	0.915	3.5	1.42	1	7.48	5.34	28
FGD Pond B Water	3/6/19	1,651	1,021	90.3	29.2	49.7	5,243	1,732	11,960

Sample Location	Sampling Date	Major Ion Concentrations (mg/L)							
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	TDS
MW-FGD-01	8/27/19	0.855	0.953	3.6	1.18	8.1	6.71	<0.50	31
MW-FGD-02	8/28/19	1.22	0.84	5.3	1.28	6.8	7.15	2.08	28
MW-FGD-03	8/28/19	5.21	1.42	4.64	1.39	15.2	7	5.92	51
MW-FGD-04	8/28/19	1.98	0.531	2.73	1.36	4.1	5.52	5	36
MW-FGD-05	8/28/19	0.621	3.63	6.38	1.8	5.4	15.3	4.78	34
AS-FGD-01	8/27/19	0.778	1.02	4.17	1.28	5.4	7.19	<0.50	472
AS-FGD-02	8/28/19	1.37	1.4	4.46	1.37	5.4	7.88	5.73	482
AS-FGD-03	8/28/19	1.52	0.715	3.24	1.33	4.1	6.9	3.95	24
FGD Pond B Water	8/28/19	1,984	1,280	158	44.3	55.6	6,375	1,873	43

Sample Location	Sampling Date	Major Ion Concentrations (mg/L)							
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	TDS
MW-FGD-01	3/10/20	2.12	2.34	5.06	2.39	3	10.8	<0.50	52
MW-FGD-02	3/10/20	49.2	4.09	5.2	3.13	80	6.68	50.4	179
MW-FGD-03	3/10/20	44.3	21.9	56.32	5.5	18	<0.50	269	421
MW-FGD-04	3/10/20	5.46	1.89	10.8	2.46	3	18.8	10	69
MW-FGD-05	3/10/20	85	6.16	7.25	2.96	135	7.02	57.7	265
AS-FGD-01	3/10/20	0.865	1.17	4.62	1.45	45	7.3	<0.50	48
AS-FGD-02	3/10/20	7.46	3.59	7.52	2.29	83	7.97	32.4	71
AS-FGD-03	3/10/20	2.06	0.812	3.62	1.38	<0.10	7.64	4.77	23
FGD Pond B Water	3/9/20	175	273	41.7	13.1	33	1,326	1,180	4,749

TDS = Total Dissolved Solids

*TDS calculated by the following formula: TDS = (0.6 x Total Alkalinity) + Ca^{+} + Mg^{2+} + Na^{+} + K^{+} + Cl^{-} + $SO_4^{=}$

Analyte concentrations reported as below the reporting limit (RL) assigned a value of 1/2 the RL for calculating TDS concentration.

TABLE 4
Charge Balance of Major Ions in Groundwater and Leachate
EPA CCR Rule Alternate Source Demonstration
DESC Wateree Station FGD Pond
Eastover, Richland County, South Carolina

Sample Location	Sampling Date	Major Ion Concentrations (meq/L)							Charge Balance Error
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	
MW-FGD-01	10/11/17	0.04	0.07	0.15	0.03	0.04	0.18	0.01	0.13
MW-FGD-02	10/11/17	0.12	0.09	0.23	0.04	0.07	0.20	0.07	0.17
MW-FGD-03	10/11/17	0.47	0.05	0.20	0.04	0.54	0.20	0.07	-0.03
MW-FGD-04	10/11/17	0.08	0.06	0.15	0.04	0.01	0.17	0.06	0.15
MW-FGD-05	10/11/17	0.13	0.20	0.27	0.05	0.13	0.39	0.03	0.08
AS-FGD-01	10/11/17	0.04	0.06	0.17	0.04	0.01	0.18	0.01	0.22
AS-FGD-02	10/11/17	0.14	0.16	0.27	0.07	0.13	0.28	0.15	0.06
AS-FGD-03	10/11/17	0.10	0.07	0.15	0.05	0.03	0.17	0.11	0.09
FGD Pond B Water	10/10/17	105.00	169.93	12.96	2.05	0.74	242.43	47.41	-0.001

Sample Location	Sampling Date	Major Ion Concentrations (meq/L)							Charge Balance Error
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	
MW-FGD-01	11/14/17	0.04	0.08	0.16	0.03	0.05	0.18	0.01	0.12
MW-FGD-02	11/14/17	0.09	0.09	0.22	0.03	0.03	0.19	0.07	0.18
MW-FGD-03	11/14/17	0.61	0.07	0.22	0.04	0.56	0.20	0.11	0.04
MW-FGD-04	11/14/17	0.16	0.07	0.16	0.04	0.02	0.18	0.08	0.21
MW-FGD-05	11/14/17	0.06	0.19	0.26	0.04	0.05	0.38	0.01	0.12
AS-FGD-01	11/14/17	0.04	0.07	0.18	0.04	0.05	0.18	0.01	0.16
AS-FGD-02	11/14/17	0.10	0.13	0.24	0.05	0.06	0.24	0.13	0.09
AS-FGD-03	11/14/17	0.10	0.08	0.15	0.05	0.03	0.17	0.12	0.09
FGD Pond B Water	11/14/17	105.00	127.62	10.30	1.67	1.30	202.18	40.85	0.00053

Sample Location	Sampling Date	Major Ion Concentrations (meq/L)							Charge Balance Error
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	
MW-FGD-01	3/5/18	0.04	0.08	0.17	0.03	0.05	0.20	0.01	0.11
MW-FGD-02	3/5/18	0.14	0.08	0.21	0.03	0.15	0.18	0.06	0.08
MW-FGD-03	3/5/18	0.41	0.06	0.19	0.04	0.41	0.19	0.04	0.05
MW-FGD-04	3/5/18	0.05	0.08	0.14	0.03	0.07	0.16	0.05	0.02
MW-FGD-05	3/5/18	0.05	0.20	0.35	0.04	0.13	0.42	0.01	0.07
AS-FGD-01	3/5/18	0.04	0.07	0.17	0.03	0.08	0.19	0.01	0.07
AS-FGD-02	3/6/18	0.07	0.12	0.20	0.04	0.05	0.22	0.12	0.05
AS-FGD-03	3/6/18	0.11	0.08	0.15	0.04	0.03	0.17	0.13	0.09

Sample Location	Sampling Date	Major Ion Concentrations (meq/L)							Charge Balance Error
		Ca^{+}	Mg^{2+}	Na^{+}	K^{+}	Total Alkalinity	Cl^{-}	$SO_4^{=}$	
MW-FGD-01	9/10/18	0.05	0.10	0.18	0.03	0.15	0.22	0.001	-0.01
MW-FGD-02	9/10/18	0.23	0.07	0.23	0.03	0.35	0.18	0.07	-0.03
MW-FGD-03	9/10/18	0.36	0.06	0.20	0.03	0.45	0.19	0.04	-0.02
MW-FGD-04	9/10/18	0.07	0.08	0.14	0.04	0.10	0.21	0.04	-0.04
MW-FGD-05	9/10/18	0.06	0.25	0.33	0.04	0.15	0.43	0.01	0.08
AS-FGD-02	9/11/18	0.06	0.10	0.23	0.03	0.05	0.21	0.13	0.05
AS-FGD-03	9/11/18	0.08	0.06	0.14	0.04	0.10	0.18	0.10	-0.08
FGD Pond B Water	11/20/18	110.00	141.67	7.83	1.69	1.18	242.86	43.75	-0.05

Sample Location	Sampling Date	Major Ion Concentrations (meq/L)							
		Ca+	Mg2+	Na+	K+	Total Alkalinity	Cl-	SO4=	Charge Balance Error
MW-FGD-01	3/6/19	0.05	0.09	0.20	0.14	0.11	0.19	0.01	0.22
MW-FGD-02	3/6/19	2.18	0.31	0.22	0.08	1.29	0.25	1.07	0.03
MW-FGD-03	3/6/19	0.90	0.59	0.83	0.07	0.50	0.25	1.57	0.01
MW-FGD-04	3/6/19	0.13	0.07	0.14	0.05	0.01	0.14	0.08	0.25
MW-FGD-05	3/6/19	4.31	0.60	0.22	0.09	2.98	0.19	1.63	0.04
AS-FGD-01	3/6/19	0.04	0.09	0.19	0.04	0.01	0.20	0.01	0.26
AS-FGD-02	3/6/19	0.14	0.15	0.32	0.05	0.07	0.25	0.21	0.11
AS-FGD-03	3/6/19	0.10	0.08	0.15	0.04	0.02	0.21	0.11	0.03
FGD Pond B Water	3/6/19	82.55	85.08	3.93	0.75	0.99	149.80	36.08	-0.04

Sample Location	Sampling Date	Major Ion Concentrations (meq/L)							
		Ca+	Mg2+	Na+	K+	Total Alkalinity	Cl-	SO4=	Charge Balance Error
MW-FGD-01	8/27/19	0.04	0.08	0.16	0.03	0.16	0.19	0.01	-0.07
MW-FGD-02	8/28/19	0.06	0.07	0.23	0.03	0.14	0.20	0.04	0.01
MW-FGD-03	8/28/19	0.26	0.12	0.20	0.04	0.30	0.20	0.12	-0.01
MW-FGD-04	8/28/19	0.10	0.04	0.12	0.03	0.08	0.16	0.10	-0.07
MW-FGD-05	8/28/19	0.03	0.30	0.28	0.05	0.11	0.44	0.10	0.01
AS-FGD-01	8/27/19	0.04	0.09	0.18	0.03	0.11	0.21	0.01	0.03
AS-FGD-02	8/28/19	0.07	0.12	0.19	0.04	0.11	0.23	0.12	-0.04
AS-FGD-03	8/28/19	0.08	0.06	0.14	0.03	0.08	0.20	0.08	-0.08
FGD Pond B Water	8/28/19	99.20	106.67	6.87	1.14	1.11	182.14	39.02	-0.02

Sample Location	Sampling Date	Major Ion Concentrations (meq/L)							
		Ca+	Mg2+	Na+	K+	Total Alkalinity	Cl-	SO4=	Charge Balance Error
MW-FGD-01	3/10/20	0.11	0.20	0.22	0.06	0.06	0.31	0.01	0.22
MW-FGD-02	3/10/20	2.46	0.34	0.23	0.08	1.60	0.19	1.05	0.04
MW-FGD-03	3/10/20	2.22	1.83	2.45	0.14	0.36	0.01	5.60	0.05
MW-FGD-04	3/10/20	0.27	0.16	0.47	0.06	0.06	0.54	0.21	0.09
MW-FGD-05	3/10/20	4.25	0.51	0.32	0.08	2.70	0.20	1.20	0.11
AS-FGD-01	3/10/20	0.04	0.10	0.20	0.04	0.90	0.21	0.01	-0.49
AS-FGD-02	3/10/20	0.37	0.30	0.33	0.06	1.66	0.23	0.68	-0.42
AS-FGD-03	3/10/20	0.10	0.07	0.16	0.04	0.00	0.22	0.10	0.07
FGD Pond B Water	3/9/20	8.75	22.75	1.81	0.34	0.66	37.89	24.58	-0.30

Analyte concentrations reported as below the reporting limit (RL) assigned a value of 1/2 the RL for calculating charge balance.
Charge balanace error calculated as ([Cations]-[Anions])/([Cations]+[Anions]) in meq/L.

TABLE 5
ION RATIOS IN GROUNDWATER AND FGD POND WASTEWATER
EPA CCR Rule Alternate Source Demonstration
DESC Wateree Station FGD Pond
Eastover, Richland County, South Carolina

Sampling Date	Sulfate/Chloride Concentration Ratio								
	MW-FGD-01	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05	AS-FGD-01	AS-FGD-02	AS-FGD-03	FGD Treatment Pond B
5/11/16	0.07	1.81	6.58	1.45	0.44	---	---	---	---
7/11/16	0.04	0.13	3.33	0.70	0.06	---	---	---	---
9/19/16	0.04	0.63	1.16	0.88	0.02	---	---	---	---
11/15/16	0.03	0.60	0.78	0.57	0.08	---	---	---	---
1/17/17	0.33	4.03	1.02	0.58	0.11	---	---	---	---
3/20/17	0.04	0.67	4.04	0.50	0.02	---	---	---	---
5/22/17	0.05	0.79	2.78	0.48	0.16	---	---	---	---
7/24/17	0.04	0.51	2.00	0.69	1.32	0.04	0.96	1.01	---
9/27/17	0.04	0.65	0.57	0.66	0.21	---	---	---	---
10/11/17	0.04	0.47	0.47	0.52	0.11	0.08	0.72	0.91	0.26
11/1/17	0.04	0.45	0.48	0.51	0.02	0.08	0.69	0.92	---
11/14/17	0.04	0.52	0.74	0.59	0.02	0.08	0.74	0.97	0.27
3/5/18	0.04	0.42	0.27	0.39	0.02	0.04	0.78	1.01	---
9/10/18	0.01	0.56	0.30	0.28	0.04	---	0.84	0.75	---
11/20/18	0.06	5.67	0.58	---	2.00	1.47*	---	---	0.25
3/6/19	0.04	5.88	8.59	0.81	11.91	0.04	1.12	0.71	0.33
5/1/19	0.04	0.98	7.75	---	---	0.04	---	---	---
8/28/19	0.04	0.29	0.85	0.91	0.31	0.03	0.73	0.57	0.29
3/10/20	0.02	7.54	1076*	0.53	8.22	0.03	4.07	0.62	0.89
Average:	0.06	1.72	2.35	0.65	1.39	0.05	1.18	0.83	0.38

Sampling Date	Lithium/Chloride Concentration Ratio								
	MW-FGD-01	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05	AS-FGD-01	AS-FGD-02	AS-FGD-03	FGD Treatment Pond B
5/11/16	0.28	0.07	0.05	0.10	0.22	---	---	---	---
7/11/16	0.20	0.22	0.12	0.11	0.22	---	---	---	---
9/19/16	0.17	0.24	0.10	0.16	0.25	---	---	---	---
11/15/16	0.32	0.24	0.12	0.15	0.19	---	---	---	---
1/17/17	3.33	0.08	0.11	0.12	0.17	---	---	---	---
3/20/17	0.41	0.29	0.11	0.14	0.16	---	---	---	---
5/22/17	0.21	0.14	0.13	0.11	0.08	---	---	---	---
7/24/17	0.36	0.36	0.12	0.14	0.08	0.54	0.44	0.34	---
9/27/17	---	---	---	---	---	---	---	---	---
10/11/17	---	---	---	---	---	0.44	0.24	0.16	0.03
11/1/17	---	---	---	---	---	0.60	0.46	0.16	---
11/14/17	---	---	---	---	---	0.15	---	---	0.05
3/5/18	0.29	---	---	---	---	---	---	---	---
9/10/18	0.28	---	---	---	---	---	0.43	0.22	---
3/6/19	0.54	0.11	0.11	0.20	0.15	0.40	0.35	0.13	0.03
8/28/19	0.30	0.32	0.12	0.20	0.12	0.45	0.39	0.20	0.04
3/10/20	0.35	0.15	3.08*	0.06	0.14	0.44	0.29	0.17	0.05
Average:	0.54	0.20	0.11	0.14	0.16	0.43	0.37	0.20	0.04

NOTES:
Analyte concentrations reported as below the reporting limit (RL) assigned a value of 1/2 the RL for calculating ion ratios.
*Data outlier not used in calculating ion ratio.

Nautilus Geologic Consulting, PLLC

APPENDIX A

Laboratory Analytical Results for Groundwater Samples

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09284**

Wateree Well Field Blank (NPDES)

Date & Time Sampled: March 09, 2020 13:50
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFBTDS

Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	Less than PQL	0.50	0.038	mg/L	3/14/20 00:14	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 00:14	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	7.33			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	Less than PQL	0.50	0.063	mg/L	3/14/20 00:14	BB
Total Alkalinity by SM2320B	2.5	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	15	2.0	2.0	mg/L	3/12/20 14:00	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

March 26, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09285**

Wateree FGD B Pond CCR

Date & Time Sampled: March 09, 2020 13:57
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL
Location Code: WAFGDBPONDAN

Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	1326	10.0	0.76	mg/L	3/23/20 21:47	BB
Fluoride by IC EPA 300.0	3.90	2.00	0.16	mg/L	3/23/20 21:47	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	8.67			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	1180	10.0	1.26	mg/L	3/23/20 21:47	BB
Total Alkalinity by SM2320B	33	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	4749	2.0	2.0	mg/L	3/12/20 14:00	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

Central Laboratory (P-08)
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Columbia, SC 29212
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Fax: (803) 217-9911

March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09296**

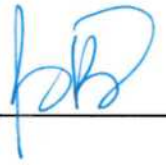
Wateree Well FGD AS3 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 10:15
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGDAS3TDS

FGD-01 Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.64	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	4.78			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	4.77	0.50	0.063	mg/L	3/14/20 23:33	BB
Total Alkalinity by SM2320B	Less than PQL	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	23	2.0	2.0	mg/L	3/12/20 14:00	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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Fax: (803) 217-9911

March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09297**

Wateree Well FGD AS2 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 10:55
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGDAS2TDS

FGD-01 Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.97	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	6.10			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	32.4	0.50	0.063	mg/L	3/14/20 23:33	BB
Total Alkalinity by SM2320B	83	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	71	2.0	2.0	mg/L	3/12/20 14:00	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

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March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09298**

Wateree Well FGD-02 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 11:35
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.68	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	6.11			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	50.4	0.50	0.063	mg/L	3/14/20 23:33	BB
Total Alkalinity by SM2320B	80	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	179	2.0	2.0	mg/L	3/16/20 10:35	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

Central Laboratory (P-08)
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Columbia, SC 29212
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Fax: (803) 217-9911

March 26, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09299**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 12:15
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD03TDS

FGD-03 Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	Less than PQL	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	7.66	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.58			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	269	3.00	0.378	mg/L	3/23/20 21:47	BB
Total Alkalinity by SM2320B	18	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	421	2.0	2.0	mg/L	3/16/20 10:35	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09300**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 12:55
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	18.8	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	4.96			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	10.0	0.50	0.063	mg/L	3/14/20 23:33	BB
Total Alkalinity by SM2320B	3	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	69	2.0	2.0	mg/L	3/16/20 10:35	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09301**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 13:35
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.02	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	6.32			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	57.7	0.50	0.063	mg/L	3/14/20 23:33	BB
Total Alkalinity by SM2320B	135	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	265	2.0	2.0	mg/L	3/16/20 10:35	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09302**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 14:15
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD01TDS

FGD-01 Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	10.8	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.11			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	Less than PQL	0.50	0.063	mg/L	3/14/20 23:33	BB
Total Alkalinity by SM2320B	3	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	52	2.0	2.0	mg/L	3/16/20 10:35	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

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March 20, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09303**

Wateree Well FGD AS1 (NPDES/CCR)

Date & Time Sampled: March 10, 2020 14:55
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGDAS1TDS

FGD-01 Login Record File: 200311001

CERTIFIED BY SCDHEC (LAI ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.30	0.50	0.038	mg/L	3/14/20 23:33	BB
Fluoride by IC EPA 300.0	Less than PQL	0.10	0.008	mg/L	3/14/20 23:33	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.28			S.U.	3/11/20 15:50	PRC
Sulfates by IC EPA 300.0	Less than PQL	0.50	0.063	mg/L	3/14/20 23:33	BB
Total Alkalinity by SM2320B	45	0.50	0.50	mg/L	3/11/20 15:50	PRC
Total Dissolved Solid-SM2540C	48	2.0	2.0	mg/L	3/16/20 10:35	MS469

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09313**

Wateree Well Field Blank T Metals (NPDES)

Date & Time Sampled: March 09, 2020 13:50
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFBTM

Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than MDL	1.0	0.090	ppb	3/13/20 15:30	LS
Arsenic by ICP_MS 200.8	Less than MDL	1.0	0.292	ppb	3/13/20 15:30	LS
Barium by ICP-OES 200.7	Less than MDL	10.0	1.113	ppb	3/12/20 11:37	AMB/C
Beryllium EPA 200.7	Less than MDL	2.0	0.148	ppb	3/12/20 11:37	AMB/C
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 11:37	AMB/C
Cadmium by ICP_MS EPA 200.8	Less than MDL	1.0	0.035	ppb	3/13/20 15:30	LS
Calcium EPA 200.7	Less than MDL	500	83.8	ppb	3/12/20 11:37	AMB/C
Chromium by ICP_MS 200.8	Less than MDL	1.0	0.130	ppb	3/13/20 15:30	LS
Cobalt by ICP_MS 200.8	Less than MDL	1.0	0.072	ppb	3/13/20 15:30	LS
Lead by ICP-MS 200.8	Less than MDL	1.0	0.085	ppb	3/13/20 15:30	LS
Lithium (CWA) 200.7	Less than MDL	2.0	0.758	ppb	3/12/20 11:37	AMB/C
Magnesium EPA 200.7	Less than MDL	50	18.7	ppb	3/12/20 11:37	AMB/C
Mercury (CWA) by EPA 245.2	Less than MDL	0.2	0.071	ppb	3/18/20 16:01	PRC
Molybdenum - EPA 200.8	Less than MDL	1.0	0.111	ppb	3/13/20 15:30	LS
Potassium EPA 200.7	Less than MDL	1000	310	ppb	3/12/20 11:37	AMB/C
Selenium by ICP-MS 200.8	Less than MDL	5.0	2.06	ppb	3/13/20 15:30	LS
Sodium EPA 200.7	Less than MDL	1000	254	ppb	3/12/20 11:37	AMB/C
Thallium by ICP-MS 200.8	Less than MDL	0.5	0.071	ppb	3/13/20 15:30	LS

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09314**

Wateree FGD B Pond CCR Metals

Date & Time Sampled: March 09, 2020 13:57
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGDBPONDHM

Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	0.72 (J)	1.0	0.090	ppb	3/13/20 15:30	LS
Arsenic by ICP_MS 200.8	3.05	1.0	0.292	ppb	3/13/20 15:30	LS
Barium by ICP-OES 200.7	42.2	10.0	1.113	ppb	3/12/20 14:22	AMB/C
Beryllium EPA 200.7	0.27 (J)	2.0	0.148	ppb	3/12/20 14:22	AMB/C
Boron - EPA 200.7	30800	200	38.458	ppb	3/12/20 14:22	AMB/C
Cadmium by ICP_MS EPA 200.8	10.5	1.0	0.035	ppb	3/13/20 15:30	LS
Calcium EPA 200.7	175000	1000	167	ppb	3/16/20 14:24	AMB/C
Chromium by ICP_MS 200.8	0.60 (J)	1.0	0.130	ppb	3/13/20 15:30	LS
Cobalt by ICP_MS 200.8	14.7	1.0	0.072	ppb	3/13/20 15:30	LS
Lead by ICP-MS 200.8	Less than MDL	1.0	0.085	ppb	3/13/20 15:30	LS
Lithium (CWA) 200.7	71.1	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	273000	50	18.7	ppb	3/12/20 14:22	AMB/C
Mercury (CWA) by EPA 245.2	1.6	0.2	0.071	ppb	3/18/20 16:01	PRC
Molybdenum - EPA 200.8	25.0	1.0	0.111	ppb	3/13/20 15:30	LS
Potassium EPA 200.7	13100	1000	310	ppb	3/12/20 14:22	AMB/C
Selenium by ICP-MS 200.8	27.9	5.0	2.06	ppb	3/13/20 15:30	LS
Sodium EPA 200.7	41700	1000	254	ppb	3/12/20 14:22	AMB/C
Thallium by ICP-MS 200.8	0.48 (J)	0.5	0.071	ppb	3/13/20 15:30	LS

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09325**

Wateree Well FGD-AS-3 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 10:15
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGDAS3TM

FGD-05 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	2060	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	1.28 (J)	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	812	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	1380	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	3620	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Ashley M Bennett

Dominion Energy

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09326**

Wateree Well FGD-AS-2 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 10:55
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGDAS2TM

FGD-05 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	7460	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	2.30	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	3590	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	2290	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	7520	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Shirley M Bennett

Dominion Energy

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09327**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 11:35
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD02TM

FGD-02 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	49200	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	Less than MDL	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	4090	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	3130	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	5200	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Ashley McBonnette

Dominion Energy

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09328**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 12:15
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD03TM

FGD-03 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	44300	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	0.77 (J)	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	21900	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	5500	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	56320	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Ashley M Bennett

Dominion Energy

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09329**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 12:55
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD04TM

FGD-04 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	5460	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	1.45 (J)	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	1890	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	2460	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	10800	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Ashley M Bratt

Dominion Energy

Central Laboratory (P-08)
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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09330**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 13:35
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD05TM

FGD-05 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	85000	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	Less than MDL	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	6160	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	2960	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	7250	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Ashley M Bennett

Dominion Energy

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09331**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 14:15
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGD01TM

FGD-01 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	2120	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	3.75	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	2340	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	2390	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	5060	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Shirley M Bennett

Dominion Energy

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March 19, 2020

REPORT TO:

Rashida Marlowe

Sample ID: **BA09332**

Wateree Well FGD-AS-1 TM (NPDES/CCR)

Date & Time Sampled: March 10, 2020 14:55
Date & Time Submitted: March 11, 2020 07:39
Collected by: J.HILL Location Code: WAFGDAS1TM

FGD-05 Login Record File: 200311002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than MDL	200	38.458	ppb	3/12/20 14:22	AMB/C
Calcium EPA 200.7	865	500	83.8	ppb	3/12/20 14:22	AMB/C
Lithium (CWA) 200.7	3.21	2.0	0.758	ppb	3/12/20 14:22	AMB/C
Magnesium EPA 200.7	1170	50	18.7	ppb	3/12/20 14:22	AMB/C
Potassium EPA 200.7	1450	1000	310	ppb	3/12/20 14:22	AMB/C
Sodium EPA 200.7	4620	1000	254	ppb	3/12/20 14:22	AMB/C

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: Ashley M Barnett

Dominion Energy

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May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09987**

Wateree MW-FGD-01 CCR/Metals

Date & Time Sampled: May 26, 2020 11:20
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAFGD01TM

FGD-01 Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	962	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	1120	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	1130	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	3050	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

Central Laboratory (P-08)
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May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09988**

Wateree MW-AP-01A CCR/Metals

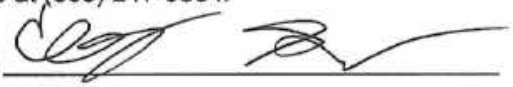
Date & Time Sampled: May 26, 2020 12:52
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAAP101ATM

AP1-01 Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	639	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	1070	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	931.00 (J)	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	4270	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09990**

Wateree Landfill Duplicate-CCR/Metals

Date & Time Sampled: May 26, 2020 12:03
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAGDUPTM

Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	324.00 (J)	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	596	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	826.00 (J)	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	1520	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

Central Laboratory (P-08)
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Columbia, SC 29212
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Fax: (803) 217-9911

May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09991**

Wateree Landfill Field Blank-CCR/Metals

Date & Time Sampled: May 26, 2020 13:05
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAGFBTM

Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	Less than MDL	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	Less than MDL	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	Less than MDL	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	Less than MDL	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: 

Dominion Energy

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Fax: (803) 217-9911

May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09993**

Wateree FGD-AS-1 CCR/Metals

Date & Time Sampled: May 27, 2020 09:11
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAFGDAS1TM

FGD-05 Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	841	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	1080	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	1410	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	4690	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Dominion Energy

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May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09994**

Wateree FGD-AS-2 CCR/Metals

Date & Time Sampled: May 27, 2020 09:54
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAFGDAS2TM

FGD-05 Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	2340	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	1600	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	1560	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	6910	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

Dominion Energy

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Fax: (803) 217-9911

May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09995**

Wateree FGD-AS-3 CCR/Metals

Date & Time Sampled: May 27, 2020 12:49
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAFGDAS3TM

FGD-05 Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	1820	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	754	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	1340	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	3450	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

Dominion Energy

Central Laboratory (P-08)
2102 North Lake Drive
Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09996**

Wateree MW-FGD-02 CCR/Metals

Date & Time Sampled: May 27, 2020 13:32
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	2720	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	1210	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	1790	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	6420	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By:

Dominion Energy

Central Laboratory (P-08)
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Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

May 29, 2020

REPORT TO:

Rocky Archer
Rashida Marlowe

Sample ID: **BA09997**

Wateree MW-FGD-04 CCR/Metals

Date & Time Sampled: May 27, 2020 14:16
Date & Time Submitted: May 27, 2020 15:35
Collected by: A.HILL Location Code: WAFGD04TM

FGD-04 Login Record File: 200528002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(PQL)	Detection Limit(MDL)	Units	Completed Analysis Date & Time	Chemist
Calcium EPA 200.7	3520	500	83.8	ppb	5/28/20 16:24	CHG
Magnesium EPA 200.7	730	50	18.7	ppb	5/28/20 16:24	CHG
Potassium EPA 200.7	1820	1000	310	ppb	5/28/20 16:24	CHG
Sodium EPA 200.7	3240	1000	254	ppb	5/28/20 16:24	CHG

A result marked by "J" is an estimated result that is less than the Reporting Limit and greater than or equal to the Detection Limit. The "J" value is not to be used for regulatory or compliance reporting.

If there are any questions concerning this sample, please contact the lab at (803) 217-9384.

Approved By: _____

Nautilus Geologic Consulting, PLLC

APPENDIX B

Results of Statistical Analysis of Data

DOMINION ENERGY
SOUTH CAROLINA

WATEREE STATION
FGD POND

RICHLAND COUNTY, SOUTH CAROLINA

CCR GROUNDWATER DETECTION MONITORING STATISTICAL ANALYSIS REPORT

for the

March 2020 Sampling Event

Prepared on
August 12, 2020

Dominion Energy®

STATISTICAL ANALYSIS REPORT

Groundwater Sampling

In accordance with 40 CFR Part 257.94, the 2020 first semi-annual groundwater sampling event for Detection Monitoring at the Wateree Station FGD Pond began on March 10, 2020. This event included groundwater sampling and resampling from background monitoring wells MW-BG-73, MW-AP-01A, MW-FGD-01, and AS-FGD-01; and the downgradient compliance monitoring wells MW-FGD-02, MW-FGD-03, MW-FGD-04, and MW-FGD-05. The groundwater samples were analyzed for the constituents listed in Appendix III of the EPA CCR Rule which include Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and Total Dissolved Solids.

Statistical Analysis

The statistical analysis indicates that the concentration of calcium in the groundwater samples collected from monitoring wells MW-FGD-02 and MW-FGD-04 show statistically significant increases (SSI) above background concentrations. No other statistically significant increases above/below background concentrations were observed for the CCR Rule Appendix III constituents in the groundwater samples collected from the FGD Pond monitoring wells during the first semi-annual 2020 Detection Monitoring event.

Wateree Station

Wateree Station FGD Pond

Run Id: 1

Location Id: **MW-FGD-02**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	03/10/2020	BA09327	--	--	< 200.000	n	n	--

Run Id: 2

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	03/10/2020	BA09327	1 of 2	2120.000	49200.000	y	n	None
Calcium, tot ug/L	05/27/2020	BA09996	1 of 2	2120.000	2720.000	y	y	None

Run Id: 3

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09298	1 of 2	10.800	6.680	n	n	--

Run Id: 4

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	5.940	n/n	n	--

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 4

Location Id: **MW-FGD-02**

Field pH S.U.	05/27/2020	FLD20200527	1 of 2	6.720	3.440	4.370	n/n	n	--

Run Id: 5

Location Id: **MW-FGD-02**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	03/10/2020	BA09298	--	--	< 0.100	n	n	--

Run Id: 6

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09298	1 of 2	11.000	50.400	y	n	None

Run Id: 7

Location Id: **MW-FGD-02**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09298	1 of 2	472.000	179.000	n	n	--

Run Id: 8

Location Id: **MW-FGD-03**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 8

Location Id: **MW-FGD-03**

Boron, total ug/L	03/10/2020	BA09328	--	--	< 200.000	n	n	--

Run Id: 9

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	03/10/2020	BA09328	1 of 2	2120.000	44300.000	y	n	Downward

Run Id: 10

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09299	1 of 2	10.800	< 0.500	n	n	--

Run Id: 11

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	5.450	n/n	n	--

Run Id: 12

Location Id: **MW-FGD-03**

Compliance Test: **Double Quantification Rule (DQR requires a second sample for a determination)**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 12

Location Id: **MW-FGD-03**

Fluoride, total mg/L	03/10/2020	BA09299	--	--	7.660	n	n	--

Run Id: 13

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09299	1 of 2	11.000	269.000	y	n	None

Run Id: 14

Location Id: **MW-FGD-03**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09299	1 of 2	472.000	421.000	n	n	--

Run Id: 15

Location Id: **MW-FGD-04**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	03/10/2020	BA09329	--	--	< 200.000	n	n	--

Run Id: 16

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Run Id: 16

Location Id: **MW-FGD-04**

Calcium, tot ug/L	03/10/2020	BA09329	1 of 2	2120.000	5460.000	y	n	None
Calcium, tot ug/L	05/27/2020	BA09997	1 of 2	2120.000	3520.000	y	y	None

Run Id: 17

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09300	1 of 2	10.800	18.800	y	n	Downward

Run Id: 18

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	4.740	n/n	n	--
Field pH S.U.	05/27/2020	FLD20200527	1 of 2	6.720	3.440	4.080	n/n	n	--

Run Id: 19

Location Id: **MW-FGD-04**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	03/10/2020	BA09300	--	--	< 0.100	n	n	--

Run Id: 20

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station

Wateree Station FGD Pond

Run Id: 20

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09300	1 of 2	11.000	10.000	n	n	--

Run Id: 21

Location Id: **MW-FGD-04**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09300	1 of 2	472.000	69.000	n	n	--

Run Id: 22

Location Id: **MW-FGD-05**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Boron, total ug/L	03/10/2020	BA09330	--	--	< 200.000	n	n	--

Run Id: 23

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Calcium, tot ug/L	03/10/2020	BA09330	1 of 2	2120.000	85000.000	y	n	None

Run Id: 24

Location Id: **MW-FGD-05**

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station

Wateree Station FGD Pond

Run Id: 24

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Chloride, tot mg/L	03/10/2020	BA09301	1 of 2	10.800	7.020	n	n	--

Run Id: 25

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Lower Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Field pH S.U.	03/10/2020	FLD20200310	1 of 2	6.720	3.440	6.480	n/n	n	--

Run Id: 26

Location Id: **MW-FGD-05**

Compliance Test: **Double Quantification Rule**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Fluoride, total mg/L	03/10/2020	BA09301	--	--	< 0.100	n	n	--

Run Id: 27

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
Sulfate, tot mg/L	03/10/2020	BA09301	1 of 2	11.000	57.700	y	n	Upward

Run Id: 28

Location Id: **MW-FGD-05**

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station

Wateree Station FGD Pond

Run Id: 28

Location Id: **MW-FGD-05**

Compliance Test: **Non-Parametric Prediction Interval on Background Useing largest background data value.**

Parameter	Sample Date	Lab Id	Re Testing	Upper Limit	Compliance Result	Exceedance	Possible SSI	Post-Hoc Trend
TDS mg/L	03/10/2020	BA09301	1 of 2	472.000	265.000	n	n	--

NOTE: If trend test is performed, the background slope is listed under the Upper Limit heading and the compliance slope is listed under the Compliance Result heading.

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 2

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	49200	y
MW-FGD-02	05/27/2020	2720	y

Run Id: 3

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.82
PU (Upper) Value: 10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	6.68	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 4

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-02	03/10/2020	5.94	n	n
MW-FGD-02	05/27/2020	4.37	n	n

Run Id: 6

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.83	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	50.4	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 7

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-02	03/10/2020	179	n

Run Id: 9

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	03/10/2020	44300	y

Run Id: 10

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.82
PU (Upper) Value: 10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

MW-FGD-03	03/10/2020	<0.5	n

Run Id: 11

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-03	03/10/2020	5.45	n	n

Run Id: 13

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.83	11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	03/10/2020	269	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 14

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-03	03/10/2020	421	n

Run Id: 16

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	5460	y
MW-FGD-04	05/27/2020	3520	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 17

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.82	10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	18.8	y

Run Id: 18

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-04	03/10/2020	4.74	n	n
MW-FGD-04	05/27/2020	4.08	n	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 20

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	10	n

Run Id: 21

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-04	03/10/2020	69	n

Run Id: 23

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00916	Calcium, tot	ug/L	66	> 15% to <= 50% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 2120.000

Location	Sample Date	Sample Result	Greater than PU (Upper)

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: **05/01/2016 to 12/31/2020**
Compliance Date Range: **03/01/2020 to 5/31/2020**
No. of Verification Resamples: **1**

MW-FGD-05	03/10/2020	85000	y

Run Id: 24

Background Locations: **AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01**

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00940	Chloride, tot	mg/L	65	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
99.82	10.800

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	03/10/2020	7.02	n

Run Id: 25

Background Locations: **AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01**

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00400	Field pH	S.U.	59	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
99.78	88.06	6.720	3.440

Location	Sample Date	Sample Result	Greater than PU (Upper)	Less than PL (Lower)
MW-FGD-05	03/10/2020	6.48	n	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/01/2016 to 12/31/2020
Compliance Date Range: 03/01/2020 to 5/31/2020
No. of Verification Resamples: 1

Run Id: 27

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00945	Sulfate, tot	mg/L	66	> 50% to <= 100% Substitute PQL

One-Sided Upper Confidence Level, %: 99.83
PU (Upper) Value: 11.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	03/10/2020	57.7	y

Run Id: 28

Background Locations: AS-FGD-01,MW-AP-01A,MW-BG-73,MW-FGD-01

Parameter Code	Parameter Name	Units	Background Sample Count	Option for LT Pts.
00515	TDS	mg/L	61	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %: 99.8
PU (Upper) Value: 472.000

Location	Sample Date	Sample Result	Greater than PU (Upper)
MW-FGD-05	03/10/2020	265	n

Wateree Station

All Backgound Results Non-Detect

Location Id: **MW-FGD-02** Run Id: 1

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-02** Run Id: 5

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	0.100	0.1	0.008	0	0.1	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-03** Run Id: 8

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-03** Run Id: 12

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule (DQR requires a second sample for a determination)

Percent ND: 0

ND Approach: 0% to <= 15% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	7.660	7.66	0.008	0	0.1	N	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-04** Run Id: 15

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

Wateree Station

All Backgound Results Non-Detect

Location Id: **MW-FGD-04** Run Id: 19

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	0.100	0.1	0.008	0	0.1	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-05** Run Id: 22

Parameter: **Boron, total, ug/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	200.000	200	38.458	0	200	Y	N

All Backgound Results Non-Detect

Location Id: **MW-FGD-05** Run Id: 26

Parameter: **Fluoride, total, mg/L**

Double Quantification Rule

Percent ND: 100

ND Approach: > 50% to <= 100% Substitute PQL

Sample Date	Modified Result	Analysis Result	Detection Lmit	RL	PQL	Non Detect	Exceedance
03/10/2020	0.100	0.1	0.008	0	0.1	Y	N

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 1

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 93

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-302.813	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.836
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 2

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-466.211	ug/L per year
Lower Confidence Limit of Slope, M1:	-1135.688	ug/L per year
Upper Confidence Limit of Slope, M2+1:	1198.658	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.681
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 3

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-1.068	mg/L per year
Lower Confidence Limit of Slope, M1:	-2.121	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.384	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-3.046
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 4

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.098	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.092	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.352	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.195
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 5

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.764
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 6

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.604	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.644	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.678	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.350
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 7

Location ID: MW-FGD-02
Confidence Level: 95%
Date Range: 05/11/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-5.578	mg/L per year
Lower Confidence Limit of Slope, M1:	-12.215	mg/L per year
Upper Confidence Limit of Slope, M2+1:	18.105	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.541
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 8

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-302.813	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.836
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 9

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-3414.604	ug/L per year
Lower Confidence Limit of Slope, M1:	-5523.612	ug/L per year
Upper Confidence Limit of Slope, M2+1:	-2062.101	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.467
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 10

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 5

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.893	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.911	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.518	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-3.212
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 11

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.150	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.262	S.U. per year
Upper Confidence Limit of Slope, M2+1:	-0.088	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.842
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 12

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 80

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.595
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 13

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-2.386	mg/L per year
Lower Confidence Limit of Slope, M1:	-7.232	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.163	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.136
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 14

Location ID: MW-FGD-03
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-10.379	mg/L per year
Lower Confidence Limit of Slope, M1:	-29.149	mg/L per year
Upper Confidence Limit of Slope, M2+1:	19.158	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.154
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 15

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-257.853	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.758
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 16

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-167.594	ug/L per year
Lower Confidence Limit of Slope, M1:	-453.989	ug/L per year
Upper Confidence Limit of Slope, M2+1:	215.540	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.746
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 17

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-0.745	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.472	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.293	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.500
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 18

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 05/27/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.006	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.147	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.147	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.041
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 19

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.004
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 20

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	-1.044	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.947	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.302	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.045
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 21

Location ID: MW-FGD-04
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.863	mg/L per year
Lower Confidence Limit of Slope, M1:	-3.119	mg/L per year
Upper Confidence Limit of Slope, M2+1:	5.539	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.199
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 22

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 01022
Parameter: Boron, total
Units: ug/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	ug/L per year
Lower Confidence Limit of Slope, M1:	-302.270	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.836
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 23

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00916
Parameter: Calcium, tot
Units: ug/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	389.292	ug/L per year
Lower Confidence Limit of Slope, M1:	-109.071	ug/L per year
Upper Confidence Limit of Slope, M2+1:	3083.089	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.265
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 24

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00940
Parameter: Chloride, tot
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	1.011	mg/L per year
Lower Confidence Limit of Slope, M1:	0.216	mg/L per year
Upper Confidence Limit of Slope, M2+1:	1.665	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	2.034
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 25

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00400
Parameter: Field pH
Units: S.U.
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.339	S.U. per year
Lower Confidence Limit of Slope, M1:	0.041	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.551	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.771
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 26

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 50% to <= 100% Substitute PQL

Parameter Code: 00951
Parameter: Fluoride, total
Units: mg/L
Percent of ND: 100

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	0.000	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.000	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.764
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 27

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: > 15% to <= 50% Substitute PQL

Parameter Code: 00945
Parameter: Sulfate, tot
Units: mg/L
Percent of ND: 29

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	1.215	mg/L per year
Lower Confidence Limit of Slope, M1:	0.000	mg/L per year
Upper Confidence Limit of Slope, M2+1:	3.968	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.806
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 28

Location ID: MW-FGD-05
Confidence Level: 95%
Date Range: 05/12/2016 to 03/10/2020
Option for LT Points: 0% to <= 15% Substitute PQL

Parameter Code: 00515
Parameter: TDS
Units: mg/L
Percent of ND: 0

Theil-Sen Non-parametric estimate of the slope (One-Sided Test)

Median Slope:	11.657	mg/L per year
Lower Confidence Limit of Slope, M1:	8.208	mg/L per year
Upper Confidence Limit of Slope, M2+1:	36.971	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	3.076
Z test:	1.645
At the 95% Confidence Level (One-Sided Test):	Upward

Nautilus Geologic Consulting, PLLC

APPENDIX C

Concentrations versus Time Graphs

Calcium vs. Time
Wateree FGD Pond