



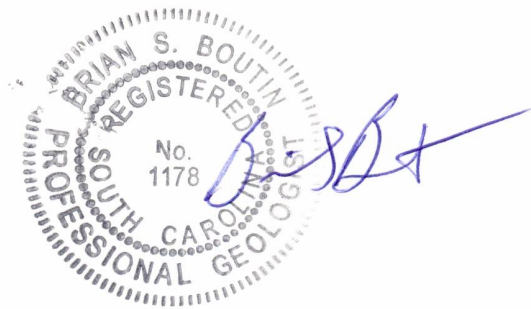
2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

EPA CCR RULE COMPLIANCE

SOUTH CAROLINA ELECTRIC & GAS: Wateree Station: FGD Pond

January 2018

Prepared by:



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- A Results of Field and Laboratory Analyses of Groundwater Samples
- B Statistical Analysis of Detection Monitoring Groundwater Quality Results



1.0 INTRODUCTION

This document presents the *2017 Annual Groundwater Monitoring and Corrective Action* report for the Flue Gas Desulfurization (FGD) Pond at South Carolina Electric & Gas (SCE&G) 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) handling facility 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 FGD Pond and all background (or upgradient) and downgradient monitoring wells, including the well identification numbers, that are part of the groundwater monitoring program for the FGD Pond;
2. Identification of additional monitoring wells that were installed during 2017, along with a narrative description of why the wells were installed;
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;
4. 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
5. 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

Five Type II groundwater monitoring wells (designated MW-FGD-01 through MW-FGD-05) were installed and developed at Wateree Station FGD Pond in March 2016 to serve as EPA CCR Rule Compliance monitoring wells. In July 2017, an additional Type II groundwater monitoring well (designated AS-FGD-01) was installed hydraulically up gradient of the FGD Pond to serve as an additional background water quality monitoring location. 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 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 well AS-FGD-01. 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 six 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 Part 257.93 Monitoring wells MW-FGD-01, AS-FGD-01, and MW-AP-01A, 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) serve as down gradient wells to monitor the quality of groundwater down gradient of the FGD Pond.



3.0 GROUNDWATER MONITORING

3.1 Groundwater Sampling

In accordance with 40 CFR Part 257.94 (b), eight independent groundwater samples were collected for field and laboratory analysis from monitoring wells MW-FGD-01 through MW-FGD-05 and MW-AP-01A beginning in May 2016 and ending in July 2017. Groundwater samples were collected from monitoring wells MW-FGD-01 through MW-FGD-05 and MW-AP-01A every other month throughout the monitoring period in accordance with the stipulations of the *Groundwater Sampling and Analysis Plan* for the Class 3 Landfill (May 2016; revised July 2016 and October 2016). One groundwater sample was collected for analysis during each of the independent monitoring events. Monitoring well AS-FGD-01 was added to the monitoring well network as an additional background monitoring well beginning with the July 2017 groundwater monitoring event. Five independent groundwater samples were collected for field and laboratory analysis from background monitoring well AS-FGD-01 during the period of July 2017 through November 2017 in accordance with the stipulations of the *Groundwater Sampling and Analysis Plan* for the Class 3 Landfill (May 2016; revised July 2016 and October 2016). One groundwater sample was collected from monitoring well AS-FGD-01 during each of the independent monitoring events.

All independent groundwater samples collected from monitoring wells MW-FGD-01 through MW-FGD-05 and MW-AP-01A in accordance with 40 CFR Part 257.84 (b) during the period of May 2016 through July 2017 were analyzed by South Carolina Certified laboratories (SCE&G Central Laboratory (Certification Number 32006) and GEL Laboratories, LLC (Certification Numbers 10120001 and 10120002) for the constituents listed in Appendix III and Appendix IV of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107). The independent groundwater sample collected from monitoring well AS-FGD-01 in accordance with 40 CFR Part 257.84 (b) during the monitoring event conducted in July 2017 was analyzed by South Carolina Certified laboratories (SCE&G Central Laboratory (Certification Number 32006) and GEL Laboratories, LLC (Certification Numbers 10120001 and 10120002) for the constituents listed in Appendix III and Appendix IV of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107). The independent groundwater sample collected from monitoring well AS-FGD-01 in accordance with 40 CFR Part 257.84 (b) during the monitoring event conducted on September 27, 2017 was analyzed by South Carolina Certified laboratories (SCE&G Central Laboratory (Certification Number 32006) and GEL Laboratories, LLC (Certification Numbers 10120001 and 10120002) for total boron and



calcium. The independent groundwater samples collected from monitoring well AS-FGD-01 in accordance with 40 CFR Part 257.84 (b) during the monitoring events conducted on October 11, 2017, November 1, 2017 and November 14, 2017 were analyzed by South Carolina Certified laboratories (SCE&G Central Laboratory (Certification Number 32006) and GEL Laboratories, LLC (Certification Numbers 10120001 and 10120002) for all the constituents listed in Appendix III and Appendix IV of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107) except Radium 226 and 228.

In accordance with 40 CFR Part 257.94, the first round of Detection Monitoring was conducted on September 27, 2017 and included groundwater sampling from monitoring wells MW-FGD-01 through MW-FGD-05 and MW-AP-01A. 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 on September 27, 2017 were analyzed by South Carolina Certified laboratories (SCE&G Central Laboratory and GEL Laboratories, LLC) for the constituents listed in Appendix III of the EPA CCR Rule (40 CFR Parts 257.50 through 257.107). It is noted that a groundwater sample was also collected from monitoring well AS-FGD-01 on September 27, 2017 and was analyzed by South Carolina Certified laboratories (SCE&G Central Laboratory and GEL Laboratories, LLC) for total boron and calcium.

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 and the first round of detection monitoring are presented in **Appendix A**. The results indicate that the pH of the groundwater at the site, including at background locations, consistently falls below the EPA CCR Rule standard range of 6.5 to 8.5 standard units (generally within the range of 3.4 to 6.5 standard units). The results further indicate that the reported concentrations of chloride, fluoride, sulfate and total dissolved solids (TDS) for the groundwater samples collected from the monitoring wells during the September 2017 detection monitoring event were all below the corresponding maximum contaminant levels (MCLs). In addition, boron was not detected in any of the groundwater samples collected from the monitoring wells during the September 2017 detection monitoring event.

Statistical analysis to compare the groundwater quality in the downgradient monitoring wells to that of background water quality for the September 2017 Detection Monitoring



event was completed on January 15, 2018 by O'Brien & Gere for South Carolina Electric & Gas. The results of the statistical analysis are presented in **Appendix B**. The statistical analysis indicates that the concentrations of calcium and sulfate in the groundwater samples collected from compliance monitoring wells MW-FGD-02 through MW-FGD-05 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). In addition, the statistical analysis indicates that the concentration of chloride in the groundwater sample collected from compliance monitoring well MW-FGD-05 shows a statistically significant increase 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 concentrations were observed for the CCR Rule Appendix III constituents in the groundwater samples collected from the monitoring wells during the September 2017 Detection Monitoring event.

3.3 Alternate Source Demonstration

In accordance with 40 CFR Part 257.94 (e) (2), SCE&G intends to conduct an Alternate Source Demonstration (ASD) for the statistically significant increases in concentrations of calcium, chloride and sulfate relative to background concentrations at the CCR Rule background monitoring wells. The ASD will rely, at a minimum, on historical groundwater quality data, site operational history, additional groundwater quality data for groundwater samples collected contemporaneously from existing monitoring wells, the results of laboratory analyses of water samples collected from the FGD Pond and nearby coal pile runoff ditch, and sampling and laboratory analysis of gypsum and limestone from storage piles located immediately adjacent to the FGD Pond.



4.0 KEY PROJECT ACTIVITIES FOR 2018

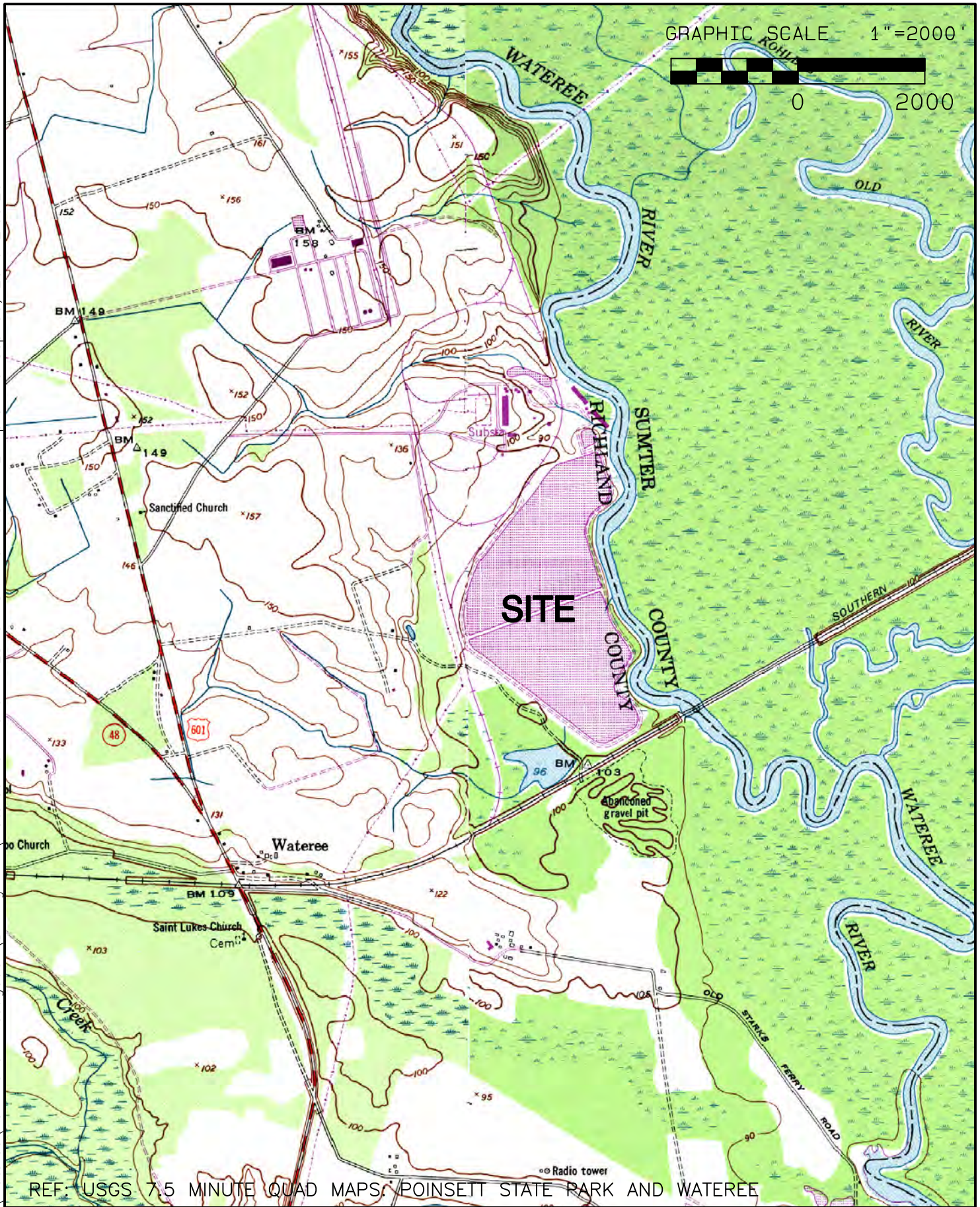
In 2018, the ASD and report of results will be completed by April 15, 2018 for inclusion in the plant operating record. It is anticipated that the ASD will demonstrate that the statistically significant increases in concentrations of calcium, chloride and sulfate observed at monitoring wells MW-FGD-02 through MW-FGD-05 during the September 2017 detection monitoring event are likely attributable to a source(s) other than the FGD Pond. Consequently, it is further anticipated that detection monitoring will be resumed in 2018. Two rounds of detection monitoring are, therefore, anticipated to be completed in 2018 with groundwater samples being collected from monitoring wells MW-FGD-01 through MW-FGD-05, AS-FGD-01 and MW-AP-01A.

V:\SCE&G\Wateree\Ash Pond Investigation\Drilling RFP\Wateree Ash Pond INVESTIGATION Plan-WORK PLAN.pro Thu Sep 30, 2010 2:03:20PM

GRAPHIC SCALE 1"=2000'



0 2000



REF. USGS 7.5 MINUTE QUAD MAPS, POINSETT STATE PARK AND WATREEE

GARRETT & MOORE
Engineering for the Power and Waste Industries

SCE&G
WATREEE STATION
SITE LOCATION MAP

JOB

FIG

1



**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

V:\Brain Boutin\Waterree\waterree.pro Wed Sep 9, 2015 3:00:28PM

ORTHOPHOTO DATED MARCH 2015



APPENDIX A

Results of Field and Laboratory Analyses of Groundwater Samples

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 05/11/2016

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.740	3.440
Field Sp. Conductivity micromhos/cm		51.000	33.000
Field Turbidity NTU		0.70	5.50
ORP mV		198.500	227.300
Oxygen, dissolved mg/L		3.400	4.470
Temp (Celcius) degrees C		20.890	21.350
Water level elevation ft		115.56	117.30

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 05/11/2016

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		4.490	5.900	4.610	4.550
Field Sp. Conductivity micromhos/cm		141.000	434.000	62.000	85.000
Field Turbidity NTU		0.70	5.10	1.40	1.10
ORP mV		158.200	126.900	178.500	185.000
Oxygen, dissolved mg/L		2.110	0.790	1.990	0.660
Temp (Celcius) degrees C		19.530	19.260	19.360	20.140
Water level elevation ft		111.72	111.98	112.54	112.58

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 397457 GEL Work Order: 397457

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: May 27, 2016

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: MW-1A Project: SCEG01716C
Sample ID: 397457001 Client ID: GEEL003
Matrix: Ground Water
Collect Date: 11-MAY-16 14:25
Receive Date: 14-MAY-16
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
SW846 9056A Anions "As Received"											
Fluoride	U	ND	0.033	0.100	mg/L	1	MAR1	05/16/16	2239	1567543	1
Metals Analysis-ICP-MS											
SW846 3005A/6020A Liquid "As Received"											
Lithium	U	ND	2.00	10.0	ug/L	1	BCD1	05/19/16	1442	1567595	2
Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid "As Received"											
Radium-228	U	ND	1.96	3.00	pCi/L		AXM6	05/24/16	1458	1567555	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		1.15	0.532	1.00	pCi/L		LXP1	05/23/16	0810	1568375	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JP1	05/16/16	1725	1567594

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 3005A/6020A	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

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

Notes:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: May 27, 2016

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: FGD-01
Sample ID: 397457016
Matrix: Ground Water
Collect Date: 11-MAY-16 16:52
Receive Date: 14-MAY-16
Collector: Client
Project: SCEG01716C
Client ID: GEEL003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Liquid "As Received"											
Fluoride	U	ND	0.033	0.100	mg/L	1	MAR1	05/17/16	1340	1567544	1
Metals Analysis-ICP-MS											
200.8/200.2 NPDES Metals "As Received"											
Lithium	U	ND	2.00	10.0	ug/L	1	BCD1	05/19/16	1808	1567593	2
Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid "As Received"											
Radium-228	U	ND	1.99	3.00	pCi/L		AXM6	05/24/16	1501	1567555	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		2.32	0.719	1.00	pCi/L		LXP1	05/22/16	1050	1567603	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	05/16/16	1800	1567592

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88.2	(15%-125%)

Notes:

GEL LABORATORIES LLC

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

QC Summary

Report Date: May 27, 2016

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 397457

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1567543										
QC1203549409	397457010	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		MAR1	05/17/16	05:02
QC1203549408	LCS										
Fluoride	2.50				2.35	mg/L	93.9	(90%-110%)		05/16/16	22:07
QC1203549407	MB										
Fluoride			U		ND	mg/L				05/16/16	21:35
QC1203549410	397457010	PS									
Fluoride	2.50	U	ND		2.44	mg/L	96.3	(90%-110%)		05/17/16	05:34
Batch	1567544										
QC1203549413	397457011	DUP									
Fluoride			0.329		0.336	mg/L	2.1 ^	(+/-0.100)	MAR1	05/17/16	10:29
QC1203549412	LCS										
Fluoride	2.50				2.38	mg/L	95.3	(90%-110%)		05/17/16	09:25
QC1203549411	MB										
Fluoride			U		ND	mg/L				05/17/16	08:53
QC1203549414	397457011	PS									
Fluoride	2.50		0.329		2.70	mg/L	94.6	(90%-110%)		05/17/16	11:01
Metals Analysis - ICPMS											
Batch	1567593										
QC1203549549	397457003	DUP									
Lithium		U	ND	U	ND	ug/L	N/A		BCD1	05/19/16	17:05
QC1203549550	397457016	DUP									
Lithium		U	ND	U	ND	ug/L	N/A			05/19/16	18:12
QC1203549548	LCS										
Lithium	50.0				50.0	ug/L	100	(80%-120%)		05/19/16	16:58
QC1203549547	MB										
Lithium			U		ND	ug/L				05/19/16	16:55
QC1203549551	397457003	MS									
Lithium	50.0	U	ND		46.9	ug/L	92.5	(75%-125%)		05/19/16	17:09
QC1203549552	397457016	MS									
					50.2			(75%-125%)			

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QC Summary

Workorder: 397457

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch 1567603											
Radium-226	122	2.32		131	pCi/L		105	(75%-125%)		05/22/16	10:50
Batch 1568375											
QC1203551527 397689003 DUP											
Radium-226		1.02		1.04	pCi/L	1.86		(0% - 100%)	LXP1	05/23/16	09:10
QC1203551529 LCS											
Radium-226	24.4			26.1	pCi/L		107	(75%-125%)		05/23/16	09:10
QC1203551526 MB											
Radium-226			U	0.190	pCi/L					05/23/16	09:10
QC1203551528 397689003 MS											
Radium-226	122	1.02		110	pCi/L		89	(75%-125%)		05/23/16	09:10

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

GEL LABORATORIES LLC

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

QC Summary

Workorder: 397457

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Q											
Q											
R											
R											
U											
UI											
UJ											
UL											
X											
Y											
Z											
^											
d											
e											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 397457 GEL Work Order: 397457

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: May 27, 2016

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: FGD-03 Project: SCEG01716C
Sample ID: 397457005 Client ID: GEEL003
Matrix: Ground Water
Collect Date: 12-MAY-16 08:15
Receive Date: 14-MAY-16
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Liquid "As Received"											
Fluoride	J	0.083	0.033	0.100	mg/L	1	MAR1	05/17/16	0047	1567543	1
Metals Analysis-ICP-MS											
200.8/200.2 NPDES Metals "As Received"											
Lithium	U	ND	2.00	10.0	ug/L	1	BCD1	05/19/16	1730	1567593	2
Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid "As Received"											
Radium-228	U	ND	2.56	3.00	pCi/L		AXM6	05/24/16	1459	1567555	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		2.45	0.629	1.00	pCi/L		LXP1	05/22/16	0950	1567603	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	05/16/16	1800	1567592

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			75.2	(15%-125%)

Notes:

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: May 27, 2016

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: FGD-04
Sample ID: 397457006
Matrix: Ground Water
Collect Date: 12-MAY-16 09:25
Receive Date: 14-MAY-16
Collector: Client
Project: SCEG01716C
Client ID: GEEL003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Liquid "As Received"											
Fluoride	J	0.0644	0.033	0.100	mg/L	1	MAR1	05/17/16	0119	1567543	1
Metals Analysis-ICP-MS											
200.8/200.2 NPDES Metals "As Received"											
Lithium	U	ND	2.00	10.0	ug/L	1	BCD1	05/19/16	1733	1567593	2
Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid "As Received"											
Radium-228		3.79	1.40	3.00	pCi/L		AXM6	05/24/16	1459	1567555	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		1.93	0.707	1.00	pCi/L		LXP1	05/22/16	0950	1567603	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	05/16/16	1800	1567592

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			82.4	(15%-125%)

Notes:

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: May 27, 2016

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: FGD-05 Project: SCEG01716C
Sample ID: 397457007 Client ID: GEEL003
Matrix: Ground Water
Collect Date: 12-MAY-16 10:25
Receive Date: 14-MAY-16
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA300.0 Fluoride in Liquid "As Received"											
Fluoride	J	0.0852	0.033	0.100	mg/L	1	MAR1	05/17/16	0150	1567543	1
Metals Analysis-ICP-MS											
200.8/200.2 NPDES Metals "As Received"											
Lithium	J	2.26	2.00	10.0	ug/L	1	BCD1	05/19/16	1737	1567593	2
Rad Gas Flow Proportional Counting											
GFPC, Ra228, Liquid "As Received"											
Radium-228		1.71	1.51	3.00	pCi/L		AXM6	05/24/16	1459	1567555	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		1.89	0.650	1.00	pCi/L		LXP1	05/22/16	1020	1567603	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	05/16/16	1800	1567592

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			82.2	(15%-125%)

Notes:

GEL LABORATORIES LLC

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QC Summary

Report Date: May 27, 2016

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 397457

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1567543										
QC1203549409	397457010	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		MAR1	05/17/16	05:02
QC1203549408	LCS										
Fluoride	2.50				2.35	mg/L	93.9	(90%-110%)		05/16/16	22:07
QC1203549407	MB										
Fluoride			U		ND	mg/L				05/16/16	21:35
QC1203549410	397457010	PS									
Fluoride	2.50	U	ND		2.44	mg/L	96.3	(90%-110%)		05/17/16	05:34
Batch	1567544										
QC1203549413	397457011	DUP									
Fluoride			0.329		0.336	mg/L	2.1 ^	(+/-0.100)	MAR1	05/17/16	10:29
QC1203549412	LCS										
Fluoride	2.50				2.38	mg/L	95.3	(90%-110%)		05/17/16	09:25
QC1203549411	MB										
Fluoride			U		ND	mg/L				05/17/16	08:53
QC1203549414	397457011	PS									
Fluoride	2.50		0.329		2.70	mg/L	94.6	(90%-110%)		05/17/16	11:01
Metals Analysis - ICPMS											
Batch	1567593										
QC1203549549	397457003	DUP									
Lithium		U	ND	U	ND	ug/L	N/A		BCD1	05/19/16	17:05
QC1203549550	397457016	DUP									
Lithium		U	ND	U	ND	ug/L	N/A			05/19/16	18:12
QC1203549548	LCS										
Lithium	50.0				50.0	ug/L	100	(80%-120%)		05/19/16	16:58
QC1203549547	MB										
Lithium			U		ND	ug/L				05/19/16	16:55
QC1203549551	397457003	MS									
Lithium	50.0	U	ND		46.9	ug/L	92.5	(75%-125%)		05/19/16	17:09
QC1203549552	397457016	MS									
					50.2			(75%-125%)			

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QC Summary

Workorder: 397457

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch 1567603											
Radium-226	122	2.32		131	pCi/L		105	(75%-125%)		05/22/16	10:50
Batch 1568375											
QC1203551527 397689003 DUP											
Radium-226		1.02		1.04	pCi/L	1.86		(0% - 100%)	LXP1	05/23/16	09:10
QC1203551529 LCS											
Radium-226	24.4			26.1	pCi/L		107	(75%-125%)		05/23/16	09:10
QC1203551526 MB											
Radium-226			U	0.190	pCi/L					05/23/16	09:10
QC1203551528 397689003 MS											
Radium-226	122	1.02		110	pCi/L		89	(75%-125%)		05/23/16	09:10

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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QC Summary

Workorder: 397457

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Q											
Q											
R											
R											
U											
UI											
UJ											
UL											
X											
Y											
Z											
^											
d											
e											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22353**

Wateree NPDES Well MW 1 (NPDES)

Date & Time Sampled: May 11, 2016 11:25
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAG01TDS

MW 1

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.64	0.50	mg/L	5/16/16 04:12	LS
pH by SM4500HB	4.82	0.00	S.U.	5/13/16 09:20	CDB
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	5/16/16 04:12	LS
Total Dissolved Solid-SM2540C	32	2.0	mg/L	5/13/16 11:45	CDB

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22356**

Wateree Well FGD-02 (NPDES)

Date & Time Sampled: May 11, 2016 18:00
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	14.7	1.0	mg/L	5/16/16 04:12	LS
pH by SM4500HB	6.12	0.00	S.U.	5/13/16 09:20	CDB
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	26.6	1.0	mg/L	5/16/16 04:12	LS
Total Dissolved Solid-SM2540C	91	2.0	mg/L	5/13/16 11:45	CDB

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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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22357**

Wateree Well FGD-03 (NPDES)

Date & Time Sampled: May 12, 2016 08:15
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	18.7	1.0	mg/L	5/16/16 04:12	LS
pH by SM4500HB	6.09	0.00	S.U.	5/13/16 09:20	CDB
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	123	1.0	mg/L	5/16/16 04:12	LS
Total Dissolved Solid-SM2540C	291	2.0	mg/L	5/13/16 11:45	CDB

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22358**

Wateree Well FGD-04 (NPDES)

Date & Time Sampled: May 12, 2016 09:25
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	9.96	1.0	mg/L	5/16/16 04:12	LS
pH by SM4500HB	5.05	0.00	S.U.	5/13/16 09:20	CDB
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	14.4	1.0	mg/L	5/16/16 04:12	LS
Total Dissolved Solid-SM2540C	48	2.0	mg/L	5/13/16 11:45	CDB

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22359**

Wateree Well FGD-05 (NPDES)

Date & Time Sampled: May 12, 2016 10:25
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	10.4	1.0	mg/L	5/16/16 04:12	LS
pH by SM4500HB	4.90	0.00	S.U.	5/13/16 09:20	CDB
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	4.60	1.0	mg/L	5/16/16 04:12	LS
Total Dissolved Solid-SM2540C	45	2.0	mg/L	5/13/16 11:45	CDB

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22365**

Wateree Well FGD-01 (NPDES)

Date & Time Sampled: May 11, 2016 16:52
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	3.54	0.50	mg/L	5/16/16 04:12	LS
pH by SM4500HB	5.35	0.00	S.U.	5/13/16 09:20	CDB
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	5/16/16 04:12	LS
Total Dissolved Solid-SM2540C	32	2.0	mg/L	5/13/16 11:45	CDB

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

Approved By: _____



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 Tel: (803)217-9384
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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22373**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: May 11, 2016 11:25
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAG01TM

MW 1

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Barium (CWA) 200.7	55.8	10.0	ppb	5/19/16 08:03	MC
Beryllium EPA 200.7	Less than	1.0	ppb	5/19/16 08:03	MC
Boron - EPA 200.7	Less than	1000	ppb	5/19/16 08:03	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Calcium EPA 200.7	781	100	ppb	5/19/16 08:03	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Lead by ICP-MS EPA 200.8	1.2	1.0	ppb	5/16/16 15:25	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/18/16 14:10	MC
Molybdenum - EPA 200.7	Less than	5.0	ppb	5/19/16 08:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	5/16/16 15:25	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC

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

Approved By: _____



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 Columbia, SC 29212
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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22376**

Wateree Well FGD-02 T Metals (NPDES)

Date & Time Sampled: May 11, 2016 18:00
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Barium (CWA) 200.7	45.0	10.0	ppb	5/19/16 08:03	MC
Beryllium EPA 200.7	Less than	1.0	ppb	5/19/16 08:03	MC
Boron - EPA 200.7	Less than	1000	ppb	5/19/16 08:03	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Calcium EPA 200.7	6350	100	ppb	5/19/16 08:03	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Cobalt by ICP_MS EPA 200.8	1.0	1.0	ppb	5/16/16 15:25	MC
Lead by ICP-MS EPA 200.8	1.1	1.0	ppb	5/16/16 15:25	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/18/16 14:10	MC
Molybdenum - EPA 200.7	Less than	5.0	ppb	5/19/16 08:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	5/16/16 15:25	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22377**

Wateree Well FGD-03 T Metals (NPDES)

Date & Time Sampled: May 12, 2016 08:15
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD03TM

FGD-03

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Barium (CWA) 200.7	76.6	10.0	ppb	5/19/16 08:03	MC
Beryllium EPA 200.7	Less than	1.0	ppb	5/19/16 08:03	MC
Boron - EPA 200.7	Less than	1000	ppb	5/19/16 08:03	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Calcium EPA 200.7	50400	100	ppb	5/19/16 08:03	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Cobalt by ICP_MS EPA 200.8	2.5	1.0	ppb	5/16/16 15:25	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/18/16 14:10	MC
Molybdenum - EPA 200.7	Less than	5.0	ppb	5/19/16 08:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	5/16/16 15:25	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22378**

Wateree Well FGD-04 T Metals (NPDES)

Date & Time Sampled: May 12, 2016 09:25
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD04TM

FGD-04

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Barium (CWA) 200.7	95.3	10.0	ppb	5/19/16 08:03	MC
Beryllium EPA 200.7	Less than	1.0	ppb	5/19/16 08:03	MC
Boron - EPA 200.7	Less than	1000	ppb	5/19/16 08:03	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Calcium EPA 200.7	3120	100	ppb	5/19/16 08:03	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Lead by ICP-MS EPA 200.8	1.3	1.0	ppb	5/16/16 15:25	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/18/16 14:10	MC
Molybdenum - EPA 200.7	8.1	5.0	ppb	5/19/16 08:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	5/16/16 15:25	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22379**

Wateree Well FGD-05 T Metals (NPDES)

Date & Time Sampled: May 12, 2016 10:25
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD05TM

FGD-05

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Barium (CWA) 200.7	101	10.0	ppb	5/19/16 08:03	MC
Beryllium EPA 200.7	Less than	1.0	ppb	5/19/16 08:03	MC
Boron - EPA 200.7	Less than	1000	ppb	5/19/16 08:03	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Calcium EPA 200.7	2100	100	ppb	5/19/16 08:03	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Cobalt by ICP_MS EPA 200.8	2.0	1.0	ppb	5/16/16 15:25	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/18/16 14:10	MC
Molybdenum - EPA 200.7	Less than	5.0	ppb	5/19/16 08:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	5/16/16 15:25	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	5/16/16 15:25	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22385**

Wateree Well FGD-01 T Metals (NPDES)

Date & Time Sampled: May 11, 2016 16:52
 Date & Time Submitted: May 12, 2016 15:00
 Collected by: A.HILL Location Code: WAFGD01TM

FGD-01

Login Record File: 160513003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	5/17/16 10:59	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	5/17/16 10:59	MC
Barium (CWA) 200.7	35.3	10.0	ppb	5/19/16 08:03	MC
Beryllium EPA 200.7	Less than	1.0	ppb	5/19/16 08:03	MC
Boron - EPA 200.7	Less than	1000	ppb	5/19/16 08:03	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/17/16 10:59	MC
Calcium EPA 200.7	359	100	ppb	5/19/16 08:03	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/17/16 10:59	MC
Cobalt by ICP_MS EPA 200.8	1.3	1.0	ppb	5/17/16 10:59	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	5/17/16 10:59	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/18/16 14:10	MC
Molybdenum - EPA 200.7	Less than	5.0	ppb	5/19/16 08:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	5/17/16 10:59	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	5/17/16 10:59	MC

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

Approved By: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 07/11/2016

Time Sampled: 12:00:00PM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.630	4.690
Field Sp. Conductivity micromhos/cm		55.000	49.000
Field Turbidity NTU		0.94	0.71
ORP mV		167.200	152.100
Oxygen, dissolved mg/L		5.570	4.080
Temp (Celcius) degrees C		24.410	25.360
Water level elevation ft		114.06	115.87

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 07/11/2016

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		4.190	6.480	3.750	4.250
Field Sp. Conductivity micromhos/cm		79.500	226.700	51.700	60.800
Field Turbidity NTU		0.40	53.60	1.50	1.60
ORP mV		210.600	-38.000	252.500	205.000
Oxygen, dissolved mg/L		2.300	0.600	0.510	0.250
Temp (Celcius) degrees C		20.600	24.400	21.300	23.600
Water level elevation ft		103.38	104.99	107.48	108.32

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 401760 GEL Work Order: 401760

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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

Reviewed by _____



GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: July 29, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-1A	Project: SCEG01716c
Sample ID: 401760001	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 11-JUL-16 11:00	
Receive Date: 15-JUL-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	07/22/16	2322	1582386	1
Metals Analysis-ICP-MS												
SW846 3005A/6020A Liquid "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	07/20/16	1931	1582806	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	2.44	3.00	pCi/L			AXM6	07/27/16	1333	1582431	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.915	0.322	1.00	pCi/L			LXP1	07/28/16	0830	1583314	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JP1	07/18/16	1855	1582805

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 3005A/6020A	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.1	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: July 29, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-01	Project: SCEG01716c
Sample ID: 401760009	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 11-JUL-16 16:35	
Receive Date: 15-JUL-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	07/23/16	0521	1582386	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.23	2.00	10.0	ug/L	1.00	1	SKJ	07/20/16	1348	1582350	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.55	3.00	pCi/L			AXM6	07/27/16	1204	1582431	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.20	0.341	1.00	pCi/L			LXP1	07/28/16	0900	1583314	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	07/15/16	1815	1582349

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.1	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: July 29, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-05	Project: SCEG01716c
Sample ID: 401760011	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 11-JUL-16 17:55	
Receive Date: 15-JUL-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0485	0.033	0.100	mg/L		1	MAR1	07/23/16	0621	1582386	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.13	2.00	10.0	ug/L	1.00	1	SKJ	07/20/16	1352	1582350	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		4.72	2.11	3.00	pCi/L			AXM6	07/27/16	1204	1582431	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.82	0.341	1.00	pCi/L			LXP1	07/28/16	0935	1583314	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	07/15/16	1815	1582349

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			96.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: July 29, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-02	Project: SCEG01716c
Sample ID: 401760013	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 12-JUL-16 08:35	
Receive Date: 15-JUL-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.051	0.033	0.100	mg/L		1	MAR1	07/23/16	0721	1582386	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	3.67	2.00	10.0	ug/L	1.00	1	SKJ	07/20/16	1358	1582350	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.95	3.00	pCi/L			AXM6	07/27/16	1204	1582431	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.44	0.381	1.00	pCi/L			LXP1	07/28/16	1010	1583315	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	07/15/16	1815	1582349

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			67.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: July 29, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-03	Project: SCEG01716c
Sample ID: 401760016	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 12-JUL-16 10:55	
Receive Date: 15-JUL-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride		0.142	0.033	0.100	mg/L		1	MAR1	07/23/16	0851	1582386	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	07/20/16	0009	1582808	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.07	3.00	pCi/L			AXM6	07/27/16	1207	1582431	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.496	0.472	1.00	pCi/L			LXP1	07/28/16	1010	1583315	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	07/18/16	1945	1582807

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			97.1	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: July 29, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-04	Project: SCEG01716c
Sample ID: 401760018	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 12-JUL-16 13:00	
Receive Date: 15-JUL-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.054	0.033	0.100	mg/L		1	MAR1	07/23/16	1050	1582386	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	07/20/16	0025	1582808	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		1.90	1.70	3.00	pCi/L			AXM6	07/27/16	1207	1582431	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.969	0.402	1.00	pCi/L			LXP1	07/28/16	1040	1583315	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	07/18/16	1945	1582807

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			101	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: July 29, 2016

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 401760

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1582386										
QC1203586449	401760001	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		MAR1	07/22/16	23:52
QC1203586450	401760020	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A			07/23/16	12:20
QC1203586448	LCS										
Fluoride	2.50				2.53	mg/L		101	(90%-110%)	07/22/16	22:52
QC1203586447	MB										
Fluoride			U		ND	mg/L				07/22/16	22:23
QC1203586451	401760001	PS									
Fluoride	2.50	U	ND		2.53	mg/L		100	(90%-110%)	07/23/16	00:22
QC1203586452	401760020	PS									
Fluoride	2.50	U	ND		2.45	mg/L		96.9	(90%-110%)	07/23/16	12:50
Metals Analysis - ICPMS											
Batch	1582350										
QC1203586364	401760011	DUP									
Lithium		J	2.13	J	2.13	ug/L	0.282 ^		(+/-10.0)	SKJ	07/20/16 13:53
QC1203586362	LCS										
Lithium	50.0				51.1	ug/L		102	(80%-120%)	07/20/16	13:30
QC1203586361	MB										
Lithium			U		ND	ug/L				07/20/16	13:29
QC1203586367	401760011	MS									
Lithium	50.0	J	2.13		52.7	ug/L		101	(75%-125%)	07/20/16	13:55
QC1203586370	401760011	SDILT									
Lithium		J	2.13	U	ND	ug/L	N/A		(0%-10%)	07/20/16	13:56
Batch	1582806										
QC1203587432	401760010	DUP									
Lithium			12.1		12.1	ug/L	0.306 ^		(+/-10.0)	SKJ	07/20/16 19:47
QC1203587431	LCS										
Lithium	50.0				49.0	ug/L		98.1	(80%-120%)	07/20/16	19:27
QC1203587430	MB										
					ND						

GEL LABORATORIES LLC

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

QC Summary

Workorder: 401760

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1582806										
Lithium			U		ug/L					07/20/16	19:23
QC1203587433	401760010	MS									
Lithium	50.0	12.1		63.3	ug/L		102	(75%-125%)	SKJ	07/20/16	19:51
QC1203587434	401760010	SDILT									
Lithium		12.1	J	2.37	ug/L	1.95		(0%-10%)		07/20/16	19:59
Batch	1582808										
QC1203587437	401760016	DUP									
Lithium		U	ND	U	ND	ug/L	N/A		SKJ	07/20/16	00:13
QC1203587436	LCS										
Lithium	50.0			47.6	ug/L		95.2	(80%-120%)		07/20/16	00:05
QC1203587435	MB										
Lithium			U	ND	ug/L					07/20/16	00:02
QC1203587438	401760016	MS									
Lithium	50.0	U	ND	49.1	ug/L		97.4	(75%-125%)		07/20/16	00:17
QC1203587439	401760016	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)		07/20/16	00:21
Rad Gas Flow											
Batch	1582431										
QC1203586537	401760008	DUP									
Radium-228		U	1.69	U	0.659	pCi/L	N/A		N/AAXM6	07/27/16	14:41
QC1203586538	LCS										
Radium-228	45.0			41.5	pCi/L		92.1	(75%-125%)		07/27/16	12:07
QC1203586536	MB										
Radium-228			U	1.27	pCi/L					07/27/16	12:06
Rad Ra-226											
Batch	1583314										
QC1203588585	401758001	DUP									
Radium-226			1.21		1.53	pCi/L	23.5	(0% - 100%)	LXP1	07/28/16	09:35
QC1203588587	LCS										
Radium-226	24.4			28.0	pCi/L		115	(75%-125%)		07/28/16	09:35
QC1203588584	MB										
Radium-226			U	0.0423	pCi/L					07/28/16	09:35
QC1203588586	401758001	MS									

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QC Summary

Workorder: 401760

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch	1583314										
Radium-226	122	1.21		97.2	pCi/L		78.7	(75%-125%)		07/28/16	09:35
Batch	1583315										
QC1203588589	401760020 DUP										
Radium-226		1.12		0.989	pCi/L	12.6		(0%-20%)	LXP1	07/28/16	11:15
QC1203588591	LCS										
Radium-226	24.4			20.3	pCi/L		83.2	(75%-125%)		07/28/16	11:45
QC1203588588	MB										
Radium-226			U	0.140	pCi/L					07/28/16	10:40
QC1203588590	401760020 MS										
Radium-226	122	1.12		117	pCi/L		95.3	(75%-125%)		07/28/16	11:15

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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QC Summary

Workorder: 401760

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Q											
Q											
R											
R											
R											
U											
U											
UI											
UI											
UJ											
UJ											
UL											
UL											
X											
X											
Y											
Y											
Z											
Z											
^											
^											
d											
d											
e											
e											
h											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22909**

Wateree NPDES Well MW 1 (NPDES)

Date & Time Sampled: July 11, 2016 11:00
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAG01TDS

MW 1

Login Record File: 160712003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.4	0.50	ppm	7/18/16 12:05	LS
pH by SM4500HB	5.93	0.00	S.U.	7/13/16 10:28	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	less than	0.50	ppm	7/18/16 12:05	LS
Total Dissolved Solid-SM2540C	27	2.0	mg/L	7/14/16 10:28	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22917**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: July 11, 2016 16:35
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 160712003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.0	0.50	ppm	7/18/16 14:28	LS
pH by SM4500HB	6.12	0.00	S.U.	7/13/16 10:28	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	less than	0.50	ppm	7/18/16 14:28	LS
Total Dissolved Solid-SM2540C	27	2.0	mg/L	7/14/16 10:28	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22919**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: July 11, 2016 17:55
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 160712003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	9.7	0.50	ppm	7/18/16 17:05	LS
pH by SM4500HB	4.97	0.00	S.U.	7/13/16 10:28	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	0.56	0.50	ppm	7/18/16 17:05	LS
Total Dissolved Solid-SM2540C	43	2.0	mg/L	7/14/16 10:28	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22920**

Wateree Well FGD-02 (NPDES/CCR)

Date & Time Sampled: July 12, 2016 08:35
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 160712003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	17	0.50	ppm	7/18/16 17:20	LS
pH by SM4500HB	5.59	0.00	S.U.	7/13/16 10:28	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	2.2	0.50	ppm	7/18/16 17:20	LS
Total Dissolved Solid-SM2540C	66	2.0	mg/L	7/14/16 10:28	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22921**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: July 12, 2016 10:55
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03

Login Record File: 160712003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.4	2.5	ppm	7/18/16 17:34	LS
pH by SM4500HB	6.60	0.00	S.U.	7/13/16 10:28	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	28	2.5	ppm	7/18/16 17:34	LS
Total Dissolved Solid-SM2540C	144.5	2.0	mg/L	7/14/16 10:28	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22922**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: July 12, 2016 13:00
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 160712003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.9	0.50	ppm	7/18/16 18:02	LS
pH by SM4500HB	5.37	0.00	S.U.	7/13/16 10:28	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	6.2	0.50	ppm	7/18/16 18:02	LS
Total Dissolved Solid-SM2540C	36	2.0	mg/L	7/14/16 10:28	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22889**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: July 11, 2016 11:00
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAG01TM

MW 1

Login Record File: 160712002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Barium (CWA) 200.7	56.5	10.0	ppb	7/18/16 10:21	MC
Beryllium EPA 200.7	Less than	1.0	ppb	7/18/16 10:21	MC
Boron - EPA 200.7	Less than	1000	ppb	7/18/16 10:21	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:39	MC
Calcium EPA 200.7	781	100	ppb	7/18/16 10:21	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:39	MC
Lead by ICP-MS EPA 200.8	1.4	1.0	ppb	7/18/16 11:39	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	7/18/16 08:10	MC
Molybdenum - EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:39	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22897**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: July 11, 2016 16:35
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD01TM

FGD-01

Login Record File: 160712002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Barium (CWA) 200.7	71.4	10.0	ppb	7/18/16 10:21	MC
Beryllium EPA 200.7	Less than	1.0	ppb	7/18/16 10:21	MC
Boron - EPA 200.7	Less than	1000	ppb	7/18/16 10:21	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:39	MC
Calcium EPA 200.7	753	100	ppb	7/18/16 10:21	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Cobalt by ICP_MS EPA 200.8	1.4	1.0	ppb	7/18/16 11:39	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:39	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	7/18/16 08:10	MC
Molybdenum - EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:39	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22899**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: July 11, 2016 17:55
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD05TM

FGD-05

Login Record File: 160712002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Barium (CWA) 200.7	117	10.0	ppb	7/18/16 10:21	MC
Beryllium EPA 200.7	Less than	1.0	ppb	7/18/16 10:21	MC
Boron - EPA 200.7	Less than	1000	ppb	7/18/16 10:21	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Calcium EPA 200.7	652	100	ppb	7/18/16 10:21	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Cobalt by ICP_MS EPA 200.8	1.6	1.0	ppb	7/18/16 11:59	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Mercury (CWA) by EPA 245.2	0.20	0.2	ppb	7/18/16 08:10	MC
Molybdenum - EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:39	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22900**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: July 12, 2016 08:35
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 160712002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Barium (CWA) 200.7	124	10.0	ppb	7/18/16 10:21	MC
Beryllium EPA 200.7	Less than	1.0	ppb	7/18/16 10:21	MC
Boron - EPA 200.7	Less than	1000	ppb	7/18/16 10:21	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Calcium EPA 200.7	4510	100	ppb	7/18/16 10:21	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Cobalt by ICP_MS EPA 200.8	2.6	1.0	ppb	7/18/16 11:59	MC
Lead by ICP-MS EPA 200.8	1.8	1.0	ppb	7/18/16 11:59	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	7/18/16 08:10	MC
Molybdenum - EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22901**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: July 12, 2016 10:55
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD03TM

FGD-03

Login Record File: 160712002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Arsenic by ICP_MS EPA 200.8	1.5	1.0	ppb	8/8/16 12:15	MC
Barium (CWA) 200.7	40.0	10.0	ppb	7/18/16 10:21	MC
Beryllium EPA 200.7	Less than	1.0	ppb	7/18/16 10:21	MC
Boron - EPA 200.7	Less than	1000	ppb	7/18/16 10:21	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Calcium EPA 200.7	31600	100	ppb	7/18/16 10:21	MC
Chromium by ICP_MS EPA 200.8	1.9	1.0	ppb	8/8/16 12:15	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	7/18/16 08:10	MC
Molybdenum - EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB22902**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: July 12, 2016 13:00
 Date & Time Submitted: July 12, 2016 15:25
 Collected by: A.HILL Location Code: WAFGD04TM

FGD-04

Login Record File: 160712002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Barium (CWA) 200.7	91.2	10.0	ppb	7/18/16 10:21	MC
Beryllium EPA 200.7	Less than	1.0	ppb	7/18/16 10:21	MC
Boron - EPA 200.7	Less than	1000	ppb	7/18/16 10:21	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Calcium EPA 200.7	2820	100	ppb	7/18/16 10:21	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/8/16 12:15	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	7/18/16 08:10	MC
Molybdenum - EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	8/8/16 12:15	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	7/18/16 11:59	MC

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

Approved By: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 09/19/2016

Time Sampled: 12:00:00PM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.450	3.900
Field Sp. Conductivity micromhos/cm		47.000	47.000
Field Turbidity NTU		179.40	282.10
ORP mV		5.210	2.920
Oxygen, dissolved mg/L		1.000	2.140
Temp (Celcius) degrees C		25.610	20.130
Water level elevation ft		114.31	115.17

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 09/19/2016

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		4.830	5.890	4.330	4.570
Field Sp. Conductivity micromhos/cm		74.000	130.000	54.000	74.000
Field Turbidity NTU		267.30	130.10	320.00	215.10
ORP mV		2.820	1.270	1.830	0.210
Oxygen, dissolved mg/L		0.700	8.900	0.700	0.800
Temp (Celcius) degrees C		21.650	22.630	22.410	23.760
Water level elevation ft		105.34	105.98	107.54	108.13

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

**Certificate of Analysis Report
for**

GEEL003 GEL Engineering, LLC

Client SDG: 406540 GEL Work Order: 406540

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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

Reviewed by  _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-1A	Project: SCEG01716c
Sample ID: 406540004	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 19-SEP-16 14:50	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Anions "As Received"												
Fluoride	J	0.0597	0.033	0.100	mg/L		1	MXL2	09/23/16	1751	1601709	1
Metals Analysis-ICP-MS												
SW846 3005A/6020A Liquid "As Received"												
Lithium	U	ND	3.00	10.0	ug/L	1.00	1	SKJ	09/26/16	2239	1601309	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.56	3.00	pCi/L			AXM6	10/19/16	1221	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.536	0.257	1.00	pCi/L			LXP1	10/18/16	0845	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JP1	09/22/16	1730	1601308

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 3005A/6020A	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			79.6	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FB-01 EPA	Project: SCEG01716c
Sample ID: 406540005	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 19-SEP-16 15:35	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	09/23/16	1934	1601708	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	09/26/16	1734	1601317	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.85	3.00	pCi/L			AXM6	10/19/16	1221	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	ND	0.379	1.00	pCi/L			LXP1	10/18/16	0845	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	09/22/16	1905	1601316

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			78.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-01	Project: SCEG01716c
Sample ID: 406540010	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 19-SEP-16 18:50	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	09/23/16	2234	1601708	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.33	2.00	10.0	ug/L	1.00	1	SKJ	09/26/16	1750	1601317	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		1.68	1.32	3.00	pCi/L			AXM6	10/19/16	1222	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.36	0.427	1.00	pCi/L			LXP1	10/18/16	0845	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	09/22/16	1905	1601316

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

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

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-99	Project: SCEG01716c
Sample ID: 406540014	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 20-SEP-16 10:05	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	09/24/16	0034	1601708	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	09/27/16	1201	1601317	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		3.59	1.79	3.00	pCi/L			AXM6	10/19/16	1221	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.888	0.531	1.00	pCi/L			LXP1	10/18/16	0920	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	09/22/16	1905	1601316

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			90.5	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-05	Project: SCEG01716c
Sample ID: 406540011	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 19-SEP-16 19:10	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	09/23/16	2304	1601708	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.56	2.00	10.0	ug/L	1.00	1	SKJ	09/26/16	1754	1601317	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.68	3.00	pCi/L			AXM6	10/19/16	1222	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.863	0.365	1.00	pCi/L			LXP1	10/18/16	0920	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	09/22/16	1905	1601316

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

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

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-03	Project: SCEG01716c
Sample ID: 406540012	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 20-SEP-16 08:35	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.070	0.033	0.100	mg/L		1	MXL2	09/23/16	2334	1601708	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	09/27/16	1147	1601317	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.50	3.00	pCi/L			AXM6	10/19/16	1222	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.716	0.327	1.00	pCi/L			LXP1	10/18/16	0920	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	09/22/16	1905	1601316

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.3	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-02	Project: SCEG01716c
Sample ID: 406540013	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 20-SEP-16 09:15	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	09/24/16	0004	1601708	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.24	2.00	10.0	ug/L	1.00	1	SKJ	09/27/16	1158	1601317	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	2.03	3.00	pCi/L			AXM6	10/19/16	1221	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.480	0.328	1.00	pCi/L			LXP1	10/18/16	0920	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	09/22/16	1905	1601316

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			74.3	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 19, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-04	Project: SCEG01716c
Sample ID: 406540015	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 20-SEP-16 10:15	
Receive Date: 22-SEP-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	09/24/16	0103	1601708	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	09/27/16	1203	1601317	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.91	3.00	pCi/L			AXM6	10/19/16	1222	1603992	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.674	0.474	1.00	pCi/L			LXP1	10/18/16	0920	1602211	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JP1	09/22/16	1905	1601316

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			79	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: October 19, 2016

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 406540

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1601708										
QC1203634730	406540002	DUP									
Fluoride		0.363		0.371	mg/L	2.34	^	(+/-0.100)	MXL2	09/23/16	18:05
QC1203634731	406540015	DUP									
Fluoride	U	ND	U	ND	mg/L	N/A				09/24/16	01:33
QC1203634729	LCS										
Fluoride	2.50			2.35	mg/L			94	(90%-110%)	09/23/16	17:05
QC1203634728	MB										
Fluoride			U	ND	mg/L					09/23/16	16:35
QC1203634732	406540002	PS									
Fluoride	2.50	0.363		2.72	mg/L			94.4	(90%-110%)	09/23/16	18:35
QC1203634733	406540015	PS									
Fluoride	2.50	U	ND	2.50	mg/L			99	(90%-110%)	09/24/16	02:03
Batch	1601709										
QC1203634736	406540021	DUP									
Fluoride	J	0.0591	J	0.0775	mg/L	26.9	^	(+/-0.100)	MXL2	09/23/16	23:06
QC1203634735	LCS										
Fluoride	2.50			2.57	mg/L			103	(90%-110%)	09/23/16	16:49
QC1203634734	MB										
Fluoride			U	ND	mg/L					09/23/16	16:18
QC1203634737	406540021	PS									
Fluoride	2.50	J	0.0591	2.77	mg/L			109	(90%-110%)	09/23/16	23:37
Metals Analysis - ICPMS											
Batch	1601309										
QC1203633861	406540001	DUP									
Lithium	J	3.09	J	3.02	ug/L	2.33	^	(+/-10.0)	SKJ	09/26/16	22:15
QC1203633860	LCS										
Lithium	50.0			51.9	ug/L			104	(80%-120%)	09/26/16	22:07
QC1203633859	MB										
Lithium			U	ND	ug/L					09/26/16	22:03
QC1203633862	406540001	MS									
				52.9				(75%-125%)			

GEL LABORATORIES LLC

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

QC Summary

Workorder: 406540

Page 2 of 4

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1601309										
Lithium	50.0	J	3.09		ug/L		99.6			09/26/16	22:19
QC1203633863	406540001	SDILT									
Lithium		J	3.09	U	ND	ug/L	N/A	(0%-10%)	SKJ	09/26/16	22:27
Batch	1601317										
QC1203633871	406540002	DUP									
Lithium		U	ND	U	ND	ug/L	N/A		SKJ	09/26/16	17:11
QC1203633872	406540012	DUP									
Lithium		U	ND	U	ND	ug/L	N/A			09/27/16	11:49
QC1203633870	LCS										
Lithium	50.0				48.0	ug/L	95.9	(80%-120%)		09/26/16	17:03
QC1203633869	MB										
Lithium			U		ND	ug/L				09/26/16	16:59
QC1203633873	406540002	MS									
Lithium	50.0	U	ND		48.4	ug/L	96.4	(75%-125%)		09/26/16	17:15
QC1203633874	406540012	MS									
Lithium	50.0	U	ND		51.1	ug/L	102	(75%-125%)		09/27/16	11:52
QC1203633875	406540002	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)		09/26/16	17:19
QC1203633876	406540012	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)		09/27/16	11:55
Rad Gas Flow											
Batch	1603992										
QC1203640324	406540008	DUP									
Radium-228		U	1.64	U	0.940	pCi/L	N/A		N/A AXM6	10/19/16	13:38
QC1203640325	LCS										
Radium-228	21.9				21.0	pCi/L	95.9	(75%-125%)		10/19/16	12:21
QC1203640323	MB										
Radium-228			U		0.252	pCi/L				10/19/16	12:21
Rad Ra-226											
Batch	1602211										
QC1203636173	406540001	DUP									
Radium-226			0.804		1.10	pCi/L	31.1	(0% - 100%)	LXP1	10/18/16	10:30
QC1203636175	LCS										

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QC Summary

Workorder: 406540

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch	1602211										
Radium-226	24.4			26.8	pCi/L		110	(75%-125%)		10/18/16	10:30
QC1203636172	MB										
Radium-226			U	0.0609	pCi/L				LXP1	10/18/16	10:30
QC1203636174	406540001 MS										
Radium-226	122	0.804		129	pCi/L		105	(75%-125%)		10/18/16	10:30

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMF Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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QC Summary

Workorder: 406540

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UJ											
UL											
X											
Y											
Z											
^											
d											
e											
h											

UJ Gamma Spectroscopy--Uncertain identification

UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



Central Laboratory (P-08)
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 Tel: (803)217-9384
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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23723**

Wateree NPDES Well MW 1 (NPDES)

Date & Time Sampled: September 19, 2016 14:50
 Date & Time Submitted: September 20, 2016 15:40
 Collected by: A.HILL Location Code: WAG01TDS

MW 1

Login Record File: 160920003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.35	0.5	mg/L	10/4/16 03:41	LS
pH by SM4500HB	5.8	0.00	S.U.	9/21/16 11:01	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	LESS THAN	0.5	mg/L	10/4/16 03:41	LS
Total Dissolved Solid-SM2540C	37	2.0	mg/L	9/22/16 10:40	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23728**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: September 19, 2016 18:50

Date & Time Submitted: September 20, 2016 15:40

Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 160920003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.00	0.5	mg/L	10/4/16 03:41	LS
pH by SM4500HB	5.72	0.00	S.U.	9/21/16 16:01	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	LESS THAN	0.5	mg/L	10/4/16 03:41	LS
Total Dissolved Solid-SM2540C	33	2.0	mg/L	9/22/16 10:40	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23729**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: September 19, 2016 19:10

Date & Time Submitted: September 20, 2016 15:40

Collected by: A.HILL

Location Code: WAFGD05TDS

FGD-05

Login Record File: 160920003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	10.4	0.5	mg/L	10/4/16 03:41	LS
pH by SM4500HB	5.25	0.00	S.U.	9/21/16 16:01	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	LESS THAN	0.5	mg/L	10/4/16 03:41	LS
Total Dissolved Solid-SM2540C	45	2.0	mg/L	9/22/16 13:25	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23730**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: September 20, 2016 08:35

Date & Time Submitted: September 20, 2016 15:40

Collected by: A.HILL

Location Code: WAFGD03TDS

FGD-03

Login Record File: 160920003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	9.63	0.5	mg/L	10/4/16 03:41	LS
pH by SM4500HB	6.46	0.00	S.U.	9/21/16 16:01	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	11.2	0.5	mg/L	10/4/16 03:41	LS
Total Dissolved Solid-SM2540C	82	2.0	mg/L	9/22/16 10:40	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23731**

Wateree Well FGD-02 (NPDES/CCR)

Date & Time Sampled: September 20, 2016 09:15

Date & Time Submitted: September 20, 2016 15:40

Collected by: A.HILL

Location Code: WAFGD02TDS

FGD-02

Login Record File: 160920003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	9.36	0.5	mg/L	10/4/16 03:41	LS
pH by SM4500HB	5.55	0.00	S.U.	9/21/16 16:01	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	5.85	0.5	mg/L	10/4/16 03:41	LS
Total Dissolved Solid-SM2540C	55	2.0	mg/L	9/23/16 09:31	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23733**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: September 20, 2016 10:15

Date & Time Submitted: September 20, 2016 15:40

Collected by: A.HILL

Location Code: WAFGD04TDS

FGD-04

Login Record File: 160920003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.13	0.5	mg/L	10/4/16 03:41	LS
pH by SM4500HB	5.14	0.00	S.U.	9/21/16 16:01	PRC
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	5.41	0.5	mg/L	10/4/16 03:41	LS
Total Dissolved Solid-SM2540C	25	2.0	mg/L	9/23/16 09:31	PRC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23743**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: September 19, 2016 14:50
 Date & Time Submitted: September 20, 2016 15:40
 Collected by: A.HILL Location Code: WAG01TM

MW 1

Login Record File: 160921001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Barium (CWA) 200.7	53.7	10.0	ppb	9/22/16 15:09	MC
Beryllium EPA 200.7	Less than	2.0	ppb	9/22/16 15:09	MC
Boron - EPA 200.7	Less than	1000	ppb	9/22/16 15:09	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Calcium EPA 200.7	721	100	ppb	9/22/16 15:09	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Lead by ICP-MS EPA 200.8	1.5	1.0	ppb	9/27/16 10:48	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	9/22/16 15:37	CB
Molybdenum - EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23748**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: September 19, 2016 18:50
 Date & Time Submitted: September 20, 2016 15:40
 Collected by: A.HILL Location Code: WAFGD01TM

FGD-01

Login Record File: 160921001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Barium (CWA) 200.7	79.0	10.0	ppb	9/22/16 15:09	MC
Beryllium EPA 200.7	Less than	2.0	ppb	9/22/16 15:09	MC
Boron - EPA 200.7	Less than	1000	ppb	9/22/16 15:09	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Calcium EPA 200.7	803	100	ppb	9/22/16 15:09	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Cobalt by ICP_MS EPA 200.8	1.5	1.0	ppb	9/27/16 10:48	MC
Lead by ICP-MS EPA 200.8	1.0	1.0	ppb	9/27/16 10:48	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	9/22/16 15:37	CB
Molybdenum - EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23749**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: September 19, 2016 19:10
 Date & Time Submitted: September 20, 2016 15:40
 Collected by: A.HILL Location Code: WAFGD05TM

FGD-05

Login Record File: 160921001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Barium (CWA) 200.7	115	10.0	ppb	9/22/16 15:09	MC
Beryllium EPA 200.7	Less than	2.0	ppb	9/22/16 15:09	MC
Boron - EPA 200.7	Less than	1000	ppb	9/22/16 15:09	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Calcium EPA 200.7	686	100	ppb	9/22/16 15:09	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Cobalt by ICP_MS EPA 200.8	1.4	1.0	ppb	9/27/16 10:48	MC
Lead by ICP-MS EPA 200.8	1.9	1.0	ppb	9/27/16 10:48	MC
Mercury (CWA) by EPA 245.2	0.21	0.2	ppb	9/22/16 15:37	CB
Molybdenum - EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23750**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: September 20, 2016 08:35
 Date & Time Submitted: September 20, 2016 15:40
 Collected by: A.HILL Location Code: WAFGD03TM

FGD-03

Login Record File: 160921001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Barium (CWA) 200.7	29.4	10.0	ppb	9/22/16 15:09	MC
Beryllium EPA 200.7	Less than	2.0	ppb	9/22/16 15:09	MC
Boron - EPA 200.7	Less than	1000	ppb	9/22/16 15:09	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Calcium EPA 200.7	16200	100	ppb	9/22/16 15:09	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	9/22/16 15:37	CB
Molybdenum - EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23751**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: September 20, 2016 09:15
 Date & Time Submitted: September 20, 2016 15:40
 Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 160921001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Barium (CWA) 200.7	57.1	10.0	ppb	9/22/16 15:09	MC
Beryllium EPA 200.7	Less than	2.0	ppb	9/22/16 15:09	MC
Boron - EPA 200.7	Less than	1000	ppb	9/22/16 15:09	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Calcium EPA 200.7	3600	100	ppb	9/22/16 15:09	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Cobalt by ICP_MS EPA 200.8	1.2	1.0	ppb	9/27/16 10:48	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	9/22/16 15:37	CB
Molybdenum - EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC

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

Approved By: _____



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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB23753**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: September 20, 2016 10:15
 Date & Time Submitted: September 20, 2016 15:40
 Collected by: A.HILL Location Code: WAFGD04TM

FGD-04

Login Record File: 160921001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Barium (CWA) 200.7	70.4	10.0	ppb	9/22/16 15:09	MC
Beryllium EPA 200.7	Less than	2.0	ppb	9/22/16 15:09	MC
Boron - EPA 200.7	Less than	1000	ppb	9/22/16 15:09	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Calcium EPA 200.7	2160	100	ppb	9/22/16 15:09	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	9/22/16 15:37	CB
Molybdenum - EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	9/27/16 10:48	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	9/27/16 10:48	MC

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

Approved By: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 11/15/2016

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.810	4.570
Field Sp. Conductivity micromhos/cm		58.000	62.000
Field Turbidity NTU		1.30	5.80
ORP mV		293.000	260.000
Oxygen, dissolved mg/L		3.970	3.070
Temp (Celcius) degrees C		20.170	14.590
Water level elevation ft		113.69	115.02

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 11/15/2016

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		5.340	6.350	4.870	5.100
Field Sp. Conductivity micromhos/cm		83.000	136.000	63.000	104.000
Field Turbidity NTU		0.90	9.50	1.10	1.40
ORP mV		146.000	98.000	210.000	209.000
Oxygen, dissolved mg/L		2.550	0.630	2.860	0.430
Temp (Celcius) degrees C		19.940	18.390	20.030	24.940
Water level elevation ft		105.14	105.77	107.28	107.81

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 411026 GEL Work Order: 411026

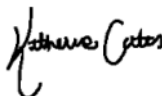
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for but not detected above the Lc
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: December 14, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-1	Project: SCEG01716c
Sample ID: 411026001	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 15-NOV-16 08:05	
Receive Date: 18-NOV-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	12/07/16	1649	1618153	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.33	2.00	10.0	ug/L	1.00	1	BAJ	11/28/16	2320	1617950	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.26	1.08	3.00	pCi/L			AXM6	12/13/16	1124	1619875	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.98	0.373	1.00	pCi/L			LXP1	12/14/16	0815	1620874	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	11/21/16	1620	1617949

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			97.4	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: December 14, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-1A	Project: SCEG01716c
Sample ID: 411026002	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 15-NOV-16 09:05	
Receive Date: 18-NOV-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0396	0.033	0.100	mg/L		1	MAR1	12/07/16	1718	1618153	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	11/28/16	2331	1617950	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		3.42	2.09	3.00	pCi/L			AXM6	12/13/16	1124	1619875	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.755	0.362	1.00	pCi/L			LXP1	12/14/16	0815	1620874	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	11/21/16	1620	1617949

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			92.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: December 14, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-02	Project: SCEG01716c
Sample ID: 411026011	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 16-NOV-16 09:25	
Receive Date: 18-NOV-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	12/08/16	0325	1618154	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.26	2.00	10.0	ug/L	1.00	1	BAJ	11/30/16	1921	1620155	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.05	1.18	3.00	pCi/L			AXM6	12/13/16	1127	1619875	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.754	0.348	1.00	pCi/L			LXP1	12/14/16	0850	1620874	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	11/30/16	0731	1620154

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			96	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: December 14, 2016

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: FGD-03 Project: SCEG01716c
Sample ID: 411026012 Client ID: GEEL003
Matrix: Ground Water
Collect Date: 16-NOV-16 10:25
Receive Date: 18-NOV-16
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride		0.130	0.033	0.100	mg/L		1	MAR1	12/08/16	0354	1618154	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	11/30/16	1923	1620155	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.51	1.41	3.00	pCi/L			AXM6	12/13/16	1127	1619875	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.811	0.437	1.00	pCi/L			LXP1	12/14/16	0850	1620874	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	11/30/16	0731	1620154

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			99.1	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: December 14, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-04	Project: SCEG01716c
Sample ID: 411026013	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 16-NOV-16 11:05	
Receive Date: 18-NOV-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	12/08/16	0423	1618154	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	11/30/16	1926	1620155	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.29	3.00	pCi/L			AXM6	12/13/16	1127	1619875	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.476	0.244	1.00	pCi/L			LXP1	12/14/16	0850	1620874	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	11/30/16	0731	1620154

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			96.5	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: December 14, 2016

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-05	Project: SCEG01716c
Sample ID: 411026014	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 16-NOV-16 12:30	
Receive Date: 18-NOV-16	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	12/08/16	0549	1618154	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.33	2.00	10.0	ug/L	1.00	1	BAJ	11/30/16	1929	1620155	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.95	1.50	3.00	pCi/L			AXM6	12/13/16	1128	1619875	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.66	0.414	1.00	pCi/L			LXP1	12/14/16	0850	1620874	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	11/30/16	0731	1620154

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			95.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: December 14, 2016

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 411026

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1618153										
QC1203674927	411027002	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		MAR1	12/07/16	22:07
QC1203674926	LCS										
Fluoride	2.50				2.53	mg/L	101	(90%-110%)		12/07/16	16:21
QC1203674925	MB										
Fluoride			U		ND	mg/L				12/07/16	15:52
QC1203674928	411027002	PS									
Fluoride	2.50	U	ND		2.54	mg/L	102	(90%-110%)		12/07/16	22:36
Batch	1618154										
QC1203674931	411026008	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		MAR1	12/08/16	01:29
QC1203674932	411027007	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A			12/08/16	08:43
QC1203674930	LCS										
Fluoride	2.50				2.56	mg/L	103	(90%-110%)		12/08/16	00:31
QC1203674929	MB										
Fluoride			U		ND	mg/L				12/08/16	00:02
QC1203674933	411026008	PS									
Fluoride	2.50	U	ND		2.45	mg/L	97.9	(90%-110%)		12/08/16	01:58
QC1203674934	411027007	PS									
Fluoride	2.50	U	ND		2.55	mg/L	102	(90%-110%)		12/08/16	09:12
Metals Analysis - ICPMS											
Batch	1617950										
QC1203674269	411026001	DUP									
Lithium		J	2.33	J	2.25	ug/L	3.58 ^	(+/-10.0)	BAJ	11/28/16	23:23
QC1203674268	LCS										
Lithium	50.0				50.4	ug/L	101	(80%-120%)		11/28/16	23:17
QC1203674267	MB										
Lithium			U		ND	ug/L				11/28/16	23:15
QC1203674271	411026001	MS									
					55.2			(75%-125%)			

GEL LABORATORIES LLC

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

QC Summary

Workorder: 411026

Page 2 of 4

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1617950										
Lithium	50.0	J	2.33		ug/L		106			11/28/16	23:25
QC1203674273	411026001	SDILT									
Lithium		J	2.33	U	ND	ug/L	N/A	(0%-10%)	BAJ	11/28/16	23:28
Batch	1620155										
QC1203680215	410911011	DUP									
Lithium		U	ND	J	2.10	ug/L	200		BAJ	11/30/16	19:13
QC1203680214	LCS										
Lithium	50.0				50.1	ug/L	100	(80%-120%)		11/30/16	19:07
QC1203680213	MB										
Lithium			U	ND	ug/L					11/30/16	19:05
QC1203680216	410911011	MS									
Lithium	50.0	U	ND		47.2	ug/L	90.4	(75%-125%)		11/30/16	19:15
QC1203680217	410911011	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)		11/30/16	19:18
Rad Gas Flow											
Batch	1619875										
QC1203679413	411026008	DUP									
Radium-228		U	1.52	U	1.30	pCi/L	N/A		N/A AXM6	12/13/16	11:28
QC1203679414	LCS										
Radium-228	21.5				24.0	pCi/L	111	(75%-125%)		12/13/16	11:30
QC1203679412	MB										
Radium-228			U	0.751	pCi/L					12/13/16	11:28
Rad Ra-226											
Batch	1620874										
QC1203682147	411026001	DUP									
Radium-226			1.98		1.32	pCi/L	40.5*	(0%-20%)	LXP1	12/14/16	09:20
QC1203682149	LCS										
Radium-226	24.4				20.4	pCi/L	83.8	(75%-125%)		12/14/16	09:20
QC1203682146	MB										
Radium-226					0.327	pCi/L				12/14/16	09:20
QC1203682148	411026001	MS									
Radium-226	122		1.98		122	pCi/L	98.2	(75%-125%)		12/14/16	09:20

GEL LABORATORIES LLC

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

QC Summary

Workorder: 411026

Page 3 of 4

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

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for but not detected above the Lc
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample

GEL LABORATORIES LLC

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

QC Summary

Workorder: 411026

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
e		5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes									
h		Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24618**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: November 15, 2016 08:05
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 161117004

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.21	0.5	mg/L	11/23/16 23:50	LS
pH by SM4500HB	5.07	0.00	S.U.	11/17/16 12:30	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	LESS THAN	0.5	mg/L	11/23/16 23:50	LS
Total Dissolved Solid-SM2540C	49	2.0	mg/L	11/18/16 13:00	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24619**

Wateree NPDES Well MW 1 (NPDES)

Date & Time Sampled: November 15, 2016 09:05
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAG01TDS

MW 1

Login Record File: 161117004

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.41	0.5	mg/L	11/23/16 23:50	LS
pH by SM4500HB	4.66	0.00	S.U.	11/17/16 12:30	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	LESS THAN	0.5	mg/L	11/23/16 23:50	LS
Total Dissolved Solid-SM2540C	36	2.0	mg/L	11/18/16 13:00	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24628**

Wateree Well FGD-02 (NPDES/CCR)

Date & Time Sampled: November 16, 2016 09:25
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 161117004

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	9.32	0.5	mg/L	11/23/16 23:50	LS
pH by SM4500HB Holding Time of 15 minutes has been exceeded.	5.30	0.00	S.U.	11/17/16 12:30	BF
Sulfates by IC EPA 300.0	5.55	0.5	mg/L	11/23/16 23:50	LS
Total Dissolved Solid-SM2540C	60	2.0	mg/L	11/18/16 13:00	BF

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

Approved By: _____



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 2102 North Lake Drive
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January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24629**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: November 16, 2016 10:25
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03

Login Record File: 161117004

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.03	0.5	mg/L	11/23/16 23:50	LS
pH by SM4500HB Holding Time of 15 minutes has been exceeded.	6.25	0.00	S.U.	11/17/16 12:30	BF
Sulfates by IC EPA 300.0	6.27	0.5	mg/L	11/23/16 23:50	LS
Total Dissolved Solid-SM2540C	75	2.0	mg/L	11/18/16 13:00	BF

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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 Fax: (803) 217-9911

January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24630**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: November 16, 2016 11:05
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 161117004

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.55	0.5	mg/L	11/23/16 23:50	LS
pH by SM4500HB Holding Time of 15 minutes has been exceeded.	4.66	0.00	S.U.	11/17/16 12:30	BF
Sulfates by IC EPA 300.0	3.72	0.5	mg/L	11/23/16 23:50	LS
Total Dissolved Solid-SM2540C	33	2.0	mg/L	11/18/16 13:00	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24631**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: November 16, 2016 12:30

Date & Time Submitted: November 17, 2016 08:10

Collected by: A.HILL

Location Code: WAFGD05TDS

FGD-05

Login Record File: 161117004

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	12.0	0.5	mg/L	11/23/16 23:50	LS
pH by SM4500HB	4.97	0.00	S.U.	11/17/16 12:30	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	0.977	0.5	mg/L	11/23/16 23:50	LS
Total Dissolved Solid-SM2540C	51	2.0	mg/L	11/18/16 13:00	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24596**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: November 15, 2016 08:05
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD01TM

FGD-01

Login Record File: 161117002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Barium (CWA) 200.7	78.9	10.0	ppb	11/17/16 14:46	MC
Beryllium EPA 200.7	Less than	2.0	ppb	11/17/16 14:46	MC
Boron - EPA 200.7	Less than	1000	ppb	11/17/16 14:46	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Calcium EPA 200.7	821	100	ppb	11/17/16 14:46	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Cobalt by ICP_MS EPA 200.8	1.3	1.0	ppb	11/17/16 16:03	MC
Lead by ICP-MS EPA 200.8	1.0	1.0	ppb	11/17/16 16:03	MC
Lithium (CWA) 200.7	Less than	10.0	ppb	11/17/16 14:57	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	11/18/16 13:52	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	11/17/16 16:03	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24597**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: November 15, 2016 09:05
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAG01TM

MW 1

Login Record File: 161117002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Barium (CWA) 200.7	55.5	10.0	ppb	11/17/16 14:46	MC
Beryllium EPA 200.7	Less than	2.0	ppb	11/17/16 14:46	MC
Boron - EPA 200.7	Less than	1000	ppb	11/17/16 14:46	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Calcium EPA 200.7	732	100	ppb	11/17/16 14:46	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Lead by ICP-MS EPA 200.8	1.6	1.0	ppb	11/17/16 16:03	MC
Lithium (CWA) 200.7	Less than	10.0	ppb	11/17/16 14:57	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	11/18/16 13:52	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	11/17/16 16:03	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24606**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: November 16, 2016 09:25
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 161117002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Barium (CWA) 200.7	68.3	10.0	ppb	11/17/16 14:46	MC
Beryllium EPA 200.7	Less than	2.0	ppb	11/17/16 14:46	MC
Boron - EPA 200.7	Less than	1000	ppb	11/17/16 14:46	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Calcium EPA 200.7	3460	100	ppb	11/17/16 14:46	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Cobalt by ICP_MS EPA 200.8	1.1	1.0	ppb	11/17/16 16:03	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Lithium (CWA) 200.7	Less than	10.0	ppb	11/17/16 14:57	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	11/18/16 13:52	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	11/17/16 16:03	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24607**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: November 16, 2016 10:25
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD03TM

FGD-03

Login Record File: 161117002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Barium (CWA) 200.7	26.0	10.0	ppb	11/17/16 14:46	MC
Beryllium EPA 200.7	Less than	2.0	ppb	11/17/16 14:46	MC
Boron - EPA 200.7	Less than	1000	ppb	11/17/16 14:46	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Calcium EPA 200.7	14600	100	ppb	11/17/16 14:46	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Lithium (CWA) 200.7	Less than	10.0	ppb	11/17/16 14:57	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	11/18/16 13:52	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	11/17/16 16:03	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24608**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: November 16, 2016 11:05
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD04TM

FGD-04

Login Record File: 161117002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Barium (CWA) 200.7	62.1	10.0	ppb	11/17/16 14:46	MC
Beryllium EPA 200.7	Less than	2.0	ppb	11/17/16 14:46	MC
Boron - EPA 200.7	Less than	1000	ppb	11/17/16 14:46	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Calcium EPA 200.7	1730	100	ppb	11/17/16 14:46	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Cobalt by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Lithium (CWA) 200.7	Less than	10.0	ppb	11/17/16 14:57	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	11/18/16 13:52	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	11/17/16 16:03	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC

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

Approved By: _____



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 2102 North Lake Drive
 Columbia, SC 29212
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 Fax: (803) 217-9911

January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB24609**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: November 16, 2016 12:30
 Date & Time Submitted: November 17, 2016 08:10
 Collected by: A.HILL Location Code: WAFGD05TM

FGD-05

Login Record File: 161117002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Arsenic by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Barium (CWA) 200.7	106	10.0	ppb	11/17/16 14:46	MC
Beryllium EPA 200.7	Less than	2.0	ppb	11/17/16 14:46	MC
Boron - EPA 200.7	Less than	1000	ppb	11/17/16 14:46	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Calcium EPA 200.7	2610	100	ppb	11/17/16 14:46	MC
Chromium by ICP_MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Cobalt by ICP_MS EPA 200.8	1.4	1.0	ppb	11/17/16 16:03	MC
Lead by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Lithium (CWA) 200.7	Less than	10.0	ppb	11/17/16 14:57	MC
Mercury (CWA) by EPA 245.2	0.26	0.2	ppb	11/18/16 13:52	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC
Selenium by ICP-MS EPA 200.8	Less than	5.0	ppb	11/17/16 16:03	MC
Thallium by ICP-MS EPA 200.8	Less than	1.0	ppb	11/17/16 16:03	MC

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

Approved By: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 01/17/2017

Time Sampled: 12:00:00PM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.630	4.680
Field Sp. Conductivity micromhos/cm		42.000	53.000
Field Turbidity NTU		2.18	2.23
ORP mV		172.700	166.200
Oxygen, dissolved mg/L		4.110	2.290
Temp (Celcius) degrees C		19.270	19.910
Water level elevation ft		115.48	116.26

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 01/17/2017

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		5.670	5.730	4.820	4.920
Field Sp. Conductivity micromhos/cm		270.000	138.000	59.000	86.000
Field Turbidity NTU		2.50	8.60	2.40	5.20
ORP mV		165.800	161.000	254.000	193.000
Oxygen, dissolved mg/L		3.730	2.660	1.820	0.530
Temp (Celcius) degrees C		20.850	22.610	20.090	20.360
Water level elevation ft		105.08	105.77	107.51	108.34

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 414773 GEL Work Order: 414773

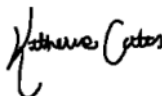
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for but not detected above the Lc
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-01	Project: SCEG01716c
Sample ID: 414773008	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 17-JAN-17 15:20	
Receive Date: 20-JAN-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	01/25/17	0941	1633301	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.53	2.00	10.0	ug/L	1.00	1	BAJ	01/25/17	2004	1633222	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		1.95	1.49	3.00	pCi/L			AXM6	02/10/17	1239	1635132	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.50	0.374	1.00	pCi/L			LXP1	02/09/17	0930	1633271	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	01/23/17	0839	1633221

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88.2	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-01A	Project: SCEG01716c
Sample ID: 414773014	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 17-JAN-17 17:00	
Receive Date: 20-JAN-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0492	0.033	0.100	mg/L		1	MAR1	01/25/17	1234	1633301	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	01/25/17	2040	1633222	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.51	2.04	3.00	pCi/L			AXM6	02/10/17	1243	1635132	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.859	0.311	1.00	pCi/L			LXP1	02/09/17	1005	1633271	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	01/23/17	0839	1633221

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.3	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-05	Project: SCEG01716c
Sample ID: 414773017	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 18-JAN-17 16:17	
Receive Date: 20-JAN-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0359	0.033	0.100	mg/L		1	MAR1	01/25/17	1459	1633301	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.21	2.00	10.0	ug/L	1.00	1	BAJ	01/25/17	2054	1633222	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		3.91	1.96	3.00	pCi/L			AXM6	02/09/17	1041	1635133	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.66	0.479	1.00	pCi/L			LXP1	02/09/17	1005	1633271	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	01/23/17	0839	1633221

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			93.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-04	Project: SCEG01716c
Sample ID: 414773018	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 18-JAN-17 15:04	
Receive Date: 20-JAN-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0479	0.033	0.100	mg/L		1	MAR1	01/25/17	1528	1633301	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	01/25/17	2056	1633222	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		1.72	1.63	3.00	pCi/L			AXM6	02/09/17	1041	1635133	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.350	0.210	1.00	pCi/L			LXP1	02/09/17	1005	1633271	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	01/23/17	0839	1633221

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

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

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-03	Project: SCEG01716c
Sample ID: 414773019	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 18-JAN-17 13:03	
Receive Date: 20-JAN-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0662	0.033	0.100	mg/L		1	MAR1	01/25/17	1556	1633301	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	01/25/17	2059	1633222	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		4.55	2.64	3.00	pCi/L			AXM6	02/09/17	1434	1635133	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.746	0.408	1.00	pCi/L			LXP1	02/09/17	1005	1633271	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	01/23/17	0839	1633221

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.6	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: February 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-02	Project: SCEG01716c
Sample ID: 414773020	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 18-JAN-17 13:47	
Receive Date: 20-JAN-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	01/25/17	1625	1633301	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	01/25/17	2102	1633222	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.96	3.00	pCi/L			AXM6	02/13/17	1113	1635133	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.627	0.440	1.00	pCi/L			LXP1	02/09/17	1037	1633271	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	01/23/17	0839	1633221

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			84.2	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: February 16, 2017

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GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 414773

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1633027										
QC1203712222	414666010	DUP									
Fluoride		0.723		0.727	mg/L	0.551		(0%-20%)	MAR1	01/24/17	22:36
QC1203714085	414775003	DUP									
Fluoride		0.288		0.290	mg/L	0.865 ^		(+/-0.100)		01/25/17	01:30
QC1203712221	LCS										
Fluoride	2.50			2.53	mg/L		101	(90%-110%)		01/24/17	16:21
QC1203712220	MB										
Fluoride			U	ND	mg/L					01/24/17	15:52
QC1203712223	414666010	PS									
Fluoride	2.50	0.723		3.20	mg/L		99.1	(90%-110%)		01/24/17	23:05
QC1203714086	414775003	PS									
Fluoride	2.50	0.288		2.75	mg/L		98.3	(90%-110%)		01/25/17	01:59
<hr/>											
Batch	1633301										
QC1203712955	414773001	DUP									
Fluoride			U	ND	U	ND	mg/L	N/A		MAR1	01/25/17 04:52
QC1203712956	414773020	DUP									
Fluoride			U	ND	U	ND	mg/L	N/A			01/25/17 16:54
QC1203712954	LCS										
Fluoride	2.50			2.55	mg/L		102	(90%-110%)		01/25/17	03:54
QC1203712953	MB										
Fluoride			U	ND	mg/L					01/25/17	03:25

GEL LABORATORIES LLC

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

QC Summary

Workorder: 414773

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1633301										
QC1203712957	414773001	PS									
Fluoride	2.50	U	ND	2.51	mg/L		99.6	(90%-110%)	MAR1	01/25/17	05:21
QC1203712958	414773020	PS									
Fluoride	2.50	U	ND	2.50	mg/L		99	(90%-110%)		01/25/17	17:23
Metals Analysis - ICPMS											
Batch	1633220										
QC1203712682	414773001	DUP									
Lithium		U	ND	U	ND	ug/L	N/A		SKJ	01/30/17	11:43
QC1203712681	LCS										
Lithium	50.0			56.3	ug/L		113	(80%-120%)		01/30/17	11:40
QC1203712680	MB										
Lithium			U	ND	ug/L					01/30/17	11:39
QC1203712683	414773001	MS									
Lithium	50.0	U	ND	56.8	ug/L		112	(75%-125%)		01/30/17	11:45
QC1203712684	414773001	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)		01/30/17	11:47
Batch	1633222										
QC1203712687	414773008	DUP									
Lithium		J	2.53	J	2.51	ug/L	0.555 ^	(+/-10.0)	BAJ	01/25/17	20:06
QC1203712688	414773009	DUP									
Lithium		U	ND	U	ND	ug/L	N/A			01/25/17	20:17
QC1203712686	LCS										
Lithium	50.0			48.5	ug/L		96.9	(80%-120%)		01/25/17	20:01

GEL LABORATORIES LLC

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

QC Summary

Workorder: 414773

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1633222										
QC1203712685		MB									
Lithium			U	ND	ug/L				BAJ	01/25/17	19:58
QC1203712689	414773008	MS									
Lithium	50.0	J	2.53	51.6	ug/L		98.1	(75%-125%)		01/25/17	20:09
QC1203712690	414773009	MS									
Lithium	50.0	U	ND	45.2	ug/L		89.9	(75%-125%)		01/25/17	20:19
QC1203712691	414773008	SDILT									
Lithium		J	2.53	U	ND	ug/L	N/A	(0%-10%)		01/25/17	20:11
QC1203712692	414773009	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)		01/25/17	20:22
Rad Gas Flow											
Batch	1635132										
QC1203717739	414773008	DUP									
Radium-228			1.95	1.23	pCi/L	45.1		(0% - 100%)	AXM6	02/10/17	12:43
QC1203717740	LCS										
Radium-228	21.1			19.4	pCi/L		92.1	(75%-125%)		02/10/17	12:43
QC1203717738	MB										
Radium-228			U	0.931	pCi/L					02/10/17	12:43
Batch	1635133										
QC1203717742	414773020	DUP									
Radium-228		U	0.393	3.34	pCi/L	158*		(0% - 100%)	AXM6	02/09/17	14:30
QC1203717743	LCS										
Radium-228	21.1			23.2	pCi/L		110	(75%-125%)		02/09/17	10:49

GEL LABORATORIES LLC

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

QC Summary

Workorder: 414773

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	1635133										
QC1203717741	MB										
Radium-228			U	0.738	pCi/L				AXM6	02/09/17	10:49
Rad Ra-226											
Batch	1633270										
QC1203712844	414666001	DUP									
Radium-226			U	0.198	pCi/L	54.2		(0% - 100%)	LXP1	02/13/17	11:10
QC1203712846	LCS										
Radium-226	26.0			24.3	pCi/L		93.7	(75%-125%)		02/13/17	11:40
QC1203712843	MB										
Radium-226				0.314	pCi/L					02/13/17	11:10
QC1203712845	414666001	MS									
Radium-226	130	U		0.198	pCi/L		102	(75%-125%)		02/13/17	11:10
Batch	1633271										
QC1203712848	414773001	DUP									
Radium-226				0.783	pCi/L	20.9		(0% - 100%)	LXP1	02/09/17	10:37
QC1203712850	LCS										
Radium-226	26.0			20.3	pCi/L		78.1	(75%-125%)		02/09/17	10:37
QC1203712847	MB										
Radium-226			U	-0.0465	pCi/L					02/09/17	10:37
QC1203712849	414773001	MS									
Radium-226	130			0.783	pCi/L		104	(75%-125%)		02/09/17	10:37

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported

GEL LABORATORIES LLC

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

QC Summary

Workorder: 414773

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
>											
B											
BD											
E											
E											
FA											
FB											
H											
J											
K											
L											
M											
M											
N											
N/A											
N1											
ND											
NJ											
Q											
R											
R											
U											
U											
UI											
UJ											
UL											
X											
Y											
Z											
^											
d											
e											
h											

GEL LABORATORIES LLC

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

QC Summary

Workorder: 414773

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<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25317**

Wateree NPDES Well MW 1 (NPDES)

Date & Time Sampled: January 17, 2017 17:00
 Date & Time Submitted: January 19, 2017 10:30
 Collected by: S.SANSBURY Location Code: WAG01TDS

MW 1

Login Record File: 170119002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	4.93	0.50	mg/L	1/25/17 00:56	EB
pH by SM4500HB Holding Time of 15 minutes has been exceeded.	4.72	0.00	S.U.	1/23/17 10:47	BF
Sulfates by IC EPA 300.0	0.83	0.50	mg/L	1/25/17 00:56	EB
Total Dissolved Solid-SM2540C	36	2.0	mg/L	1/23/17 13:53	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25318**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: January 17, 2017 15:20

Date & Time Submitted: January 19, 2017 10:30

Collected by: S.SANSBURY Location Code: WAFGD01TDS

FGD-01

Login Record File: 170119002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.76	0.50	mg/L	1/25/17 00:56	EB
pH by SM4500HB	4.66	0.00	S.U.	1/23/17 10:47	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	1/25/17 00:56	EB
Total Dissolved Solid-SM2540C	29	2.0	mg/L	1/23/17 13:53	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25326**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: January 18, 2017 16:17

Date & Time Submitted: January 19, 2017 10:30

Collected by: S.SANSBURY Location Code: WAFGD05TDS

FGD-05

Login Record File: 170119002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	12.99	0.50	mg/L	1/25/17 00:56	EB
pH by SM4500HB	4.99	0.00	S.U.	1/23/17 10:47	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	1.48	0.50	mg/L	1/25/17 00:56	EB
Total Dissolved Solid-SM2540C	45	2.0	mg/L	1/24/17 13:30	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25327**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: January 18, 2017 15:04

Date & Time Submitted: January 19, 2017 10:30

Collected by: S.SANSBURY Location Code: WAFGD04TDS

FGD-04

Login Record File: 170119002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.08	0.50	mg/L	1/25/17 00:56	EB
pH by SM4500HB	4.65	0.00	S.U.	1/23/17 10:47	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	4.70	0.50	mg/L	1/25/17 00:56	EB
Total Dissolved Solid-SM2540C	28	2.0	mg/L	1/24/17 13:30	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25328**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: January 18, 2017 13:03

Date & Time Submitted: January 19, 2017 10:30

Collected by: S.SANSBURY Location Code: WAFGD03TDS

FGD-03

Login Record File: 170119002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.76	0.50	mg/L	1/25/17 00:56	EB
pH by SM4500HB	6.09	0.00	S.U.	1/23/17 10:47	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	8.91	0.50	mg/L	1/25/17 00:56	EB
Total Dissolved Solid-SM2540C	68	2.0	mg/L	1/24/17 13:30	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25329**

Wateree Well FGD-02 (NPDES/CCR)

Date & Time Sampled: January 18, 2017 13:47

Date & Time Submitted: January 19, 2017 10:30

Collected by: S.SANSBURY Location Code: WAFGD02TDS

FGD-02

Login Record File: 170119002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	12.22	0.5	mg/L	1/25/17 00:39	EB
pH by SM4500HB	5.90	0.00	S.U.	1/23/17 10:47	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	49.25	0.5	mg/L	1/25/17 00:39	EB
Total Dissolved Solid-SM2540C	119	2.0	mg/L	1/24/17 13:30	BF

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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 Columbia, SC 29212
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 Fax: (803) 217-9911

January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25338**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: January 17, 2017 17:00
 Date & Time Submitted: January 19, 2017 10:30
 Collected by: S.SANSBURY Location Code: WAG01TM

MW 1

Login Record File: 170119003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Arsenic by ICP_MS 200.8	1.2	1.0	ppb	1/23/17 13:28	MC
Barium by ICP-OES 200.7	54.1	10.0	ppb	1/23/17 08:38	MC
Beryllium EPA 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Boron - EPA 200.7	Less than	1000	ppb	1/23/17 08:38	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Calcium EPA 200.7	678	100	ppb	1/23/17 08:38	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Lead by ICP-MS 200.8	1.3	1.0	ppb	1/23/17 13:28	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	1/24/17 15:58	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	1/23/17 13:28	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25339**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: January 17, 2017 15:20
 Date & Time Submitted: January 19, 2017 10:30
 Collected by: S.SANSBURY Location Code: WAFGD01TM

FGD-01

Login Record File: 170119003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Arsenic by ICP_MS 200.8	1.2	1.0	ppb	1/23/17 13:28	MC
Barium by ICP-OES 200.7	99.5	10.0	ppb	1/23/17 08:38	MC
Beryllium EPA 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Boron - EPA 200.7	Less than	1000	ppb	1/23/17 08:38	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Calcium EPA 200.7	962	100	ppb	1/23/17 08:38	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Cobalt by ICP_MS 200.8	1.4	1.0	ppb	1/23/17 13:28	MC
Lead by ICP-MS 200.8	1.2	1.0	ppb	1/23/17 13:28	MC
Lithium (CWA) 200.7	2.7	2.0	ppb	1/23/17 08:38	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	1/24/17 15:58	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	1/23/17 13:28	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25347**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: January 18, 2017 16:17
 Date & Time Submitted: January 19, 2017 10:30
 Collected by: S.SANSBURY Location Code: WAFGD05TM

FGD-05

Login Record File: 170119003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Arsenic by ICP_MS 200.8	1.1	1.0	ppb	1/23/17 13:28	MC
Barium by ICP-OES 200.7	127	10.0	ppb	1/23/17 08:38	MC
Beryllium EPA 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Boron - EPA 200.7	Less than	1000	ppb	1/23/17 08:38	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Calcium EPA 200.7	1460	100	ppb	1/23/17 08:38	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Cobalt by ICP_MS 200.8	1.6	1.0	ppb	1/23/17 13:28	MC
Lead by ICP-MS 200.8	1.5	1.0	ppb	1/23/17 13:28	MC
Lithium (CWA) 200.7	2.3	2.0	ppb	1/23/17 08:38	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	1/24/17 15:58	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	1/23/17 13:28	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	1/23/17 13:28	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 13:28	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25348**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: January 18, 2017 15:04
 Date & Time Submitted: January 19, 2017 10:30
 Collected by: S.SANSBURY Location Code: WAFGD04TM

FGD-04

Login Record File: 170119003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Arsenic by ICP_MS 200.8	1.3	1.0	ppb	1/23/17 15:10	MC
Barium by ICP-OES 200.7	74.6	10.0	ppb	1/23/17 08:38	MC
Beryllium EPA 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Boron - EPA 200.7	Less than	1000	ppb	1/23/17 08:38	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Calcium EPA 200.7	2540	100	ppb	1/23/17 08:38	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Lead by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	1/24/17 15:58	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	1/23/17 15:10	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25349**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: January 18, 2017 13:03
 Date & Time Submitted: January 19, 2017 10:30
 Collected by: S.SANSBURY Location Code: WAFGD03TM

FGD-03

Login Record File: 170119003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Arsenic by ICP_MS 200.8	1.4	1.0	ppb	1/23/17 15:10	MC
Barium by ICP-OES 200.7	26.4	10.0	ppb	1/23/17 08:38	MC
Beryllium EPA 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Boron - EPA 200.7	Less than	1000	ppb	1/23/17 08:38	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Calcium EPA 200.7	12800	100	ppb	1/23/17 08:38	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Lead by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	1/24/17 15:58	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	1/23/17 15:10	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB25350**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: January 18, 2017 13:47
 Date & Time Submitted: January 19, 2017 10:30
 Collected by: S.SANSBURY Location Code: WAFGD02TM

FGD-02

Login Record File: 170119003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Arsenic by ICP_MS 200.8	1.3	1.0	ppb	1/23/17 15:10	MC
Barium by ICP-OES 200.7	54.4	10.0	ppb	1/23/17 08:38	MC
Beryllium EPA 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Boron - EPA 200.7	Less than	1000	ppb	1/23/17 08:38	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Calcium EPA 200.7	27000	100	ppb	1/23/17 08:38	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Lead by ICP-MS 200.8	1.4	1.0	ppb	1/23/17 15:10	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	1/23/17 08:38	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	1/24/17 15:58	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	1/23/17 15:10	MC
Selenium by ICP-MS 200.8	18.3	5.0	ppb	1/23/17 15:10	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	1/23/17 15:10	MC

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

Approved By: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 03/20/2017

Time Sampled: 12:00:00PM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.450	4.350
Field Sp. Conductivity micromhos/cm		40.000	47.000
Field Turbidity NTU		9.50	2.60
ORP mV		174.200	288.700
Oxygen, dissolved mg/L		4.600	3.070
Temp (Celcius) degrees C		18.680	18.110
Water level elevation ft		114.51	115.85

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 03/20/2017

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		4.800	5.770	4.200	6.090
Field Sp. Conductivity micromhos/cm		66.000	168.000	51.000	428.000
Field Turbidity NTU		4.70	9.00	2.90	7.20
ORP mV		218.100	182.100	296.900	-66.400
Oxygen, dissolved mg/L		3.100	2.620	1.390	1.030
Temp (Celcius) degrees C		19.070	22.880	19.160	18.400
Water level elevation ft		104.92	105.65	107.36	108.00

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 419050 GEL Work Order: 419050

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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

Reviewed by _____



GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: April 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-01	Project: SCEG01716c
Sample ID: 419050001	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 20-MAR-17 13:35	
Receive Date: 22-MAR-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	03/23/17	0825	1649928	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.40	2.00	10.0	ug/L	1.00	1	BAJ	03/28/17	1539	1649909	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		1.32	0.835	3.00	pCi/L			AXM6	04/12/17	1041	1651322	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.42	0.224	1.00	pCi/L			MXH8	04/14/17	0955	1651334	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	03/22/17	1839	1649906

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			84.7	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: April 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-1A	Project: SCEG01716c
Sample ID: 419050002	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 20-MAR-17 14:35	
Receive Date: 22-MAR-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	03/23/17	0852	1649928	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	03/28/17	1551	1649909	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		0.979	0.782	3.00	pCi/L			AXM6	04/12/17	1041	1651322	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.664	0.319	1.00	pCi/L			MXH8	04/14/17	0955	1651334	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	03/22/17	1839	1649906

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			99.5	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: April 16, 2017

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: FGD-03
Sample ID: 419050008
Matrix: Ground Water
Collect Date: 21-MAR-17 12:05
Receive Date: 22-MAR-17
Collector: Client
Project: SCEG01716c
Client ID: GEEL003

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0711	0.033	0.100	mg/L		1	MXL2	03/24/17	0222	1649958	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	03/28/17	1629	1649909	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	0.457	3.00	pCi/L			AXM6	04/12/17	1157	1651322	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.371	0.177	1.00	pCi/L			MXH8	04/14/17	1025	1651334	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	03/22/17	1839	1649906

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			94.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: April 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-04	Project: SCEG01716c
Sample ID: 419050009	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 21-MAR-17 12:45	
Receive Date: 22-MAR-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.073	0.033	0.100	mg/L		1	MXL2	03/24/17	0252	1649958	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	03/28/17	1632	1649909	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.02	0.568	3.00	pCi/L			AXM6	04/12/17	1044	1651322	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.661	0.328	1.00	pCi/L			MXH8	04/14/17	1025	1651334	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	03/22/17	1839	1649906

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			87	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: April 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-05	Project: SCEG01716c
Sample ID: 419050012	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 21-MAR-17 13:50	
Receive Date: 22-MAR-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.036	0.033	0.100	mg/L		1	MXL2	03/24/17	0519	1649958	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.09	2.00	10.0	ug/L	1.00	1	BAJ	03/28/17	1641	1649909	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.95	0.527	3.00	pCi/L			AXM6	04/12/17	1044	1651322	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.15	0.344	1.00	pCi/L			MXH8	04/14/17	1025	1651334	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	03/22/17	1839	1649906

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			86.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: April 16, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-02	Project: SCEG01716c
Sample ID: 419050014	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 21-MAR-17 10:50	
Receive Date: 22-MAR-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	03/24/17	0618	1649958	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.19	2.00	10.0	ug/L	1.00	1	BAJ	03/28/17	1646	1649909	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	0.598	3.00	pCi/L			AXM6	04/12/17	1044	1651322	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	ND	0.384	1.00	pCi/L			MXH8	04/14/17	1100	1651334	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CXW4	03/22/17	1839	1649906

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			95	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: April 16, 2017

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 419050

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1649928										
QC1203753083	419043001	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		MXL2	03/23/17	03:56
QC1203753082	LCS										
Fluoride	2.50				2.40	mg/L	96	(90%-110%)		03/23/17	03:02
QC1203753081	MB										
Fluoride			U		ND	mg/L				03/23/17	02:35
QC1203753084	419043001	PS									
Fluoride	2.50	U	ND		2.51	mg/L	99.8	(90%-110%)		03/23/17	04:23
Batch	1649958										
QC1203753188	419050004	DUP									
Fluoride			0.311		0.310	mg/L	0.483 ^	(+/-0.100)	MXL2	03/23/17	23:55
QC1203753189	419050014	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A			03/24/17	06:47
QC1203753187	LCS										
Fluoride	2.50				2.51	mg/L	101	(90%-110%)		03/23/17	22:57
QC1203753186	MB										
Fluoride			U		ND	mg/L				03/23/17	22:27
QC1203753190	419050004	PS									
Fluoride	2.50		0.311		2.71	mg/L	96.1	(90%-110%)		03/24/17	00:25
QC1203753191	419050014	PS									
Fluoride	2.50	U	ND		2.55	mg/L	101	(90%-110%)		03/24/17	07:17

GEL LABORATORIES LLC

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QC Summary

Workorder: 419050

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1649909										
QC1203753023	419050001	DUP									
Lithium		J	2.40	J	2.41	ug/L	0.583 ^	(+/-10.0)	BAJ	03/28/17	15:42
QC1203753024	419050004	DUP									
Lithium			11.8		11.7	ug/L	0.767 ^	(+/-10.0)		03/28/17	16:06
QC1203753022	LCS										
Lithium	50.0				51.9	ug/L		104 (80%-120%)		03/28/17	15:37
QC1203753021	MB										
Lithium				U	ND	ug/L				03/28/17	15:34
QC1203753025	419050001	MS									
Lithium	50.0	J	2.40		56.9	ug/L		109 (75%-125%)		03/28/17	15:45
QC1203753026	419050004	MS									
Lithium	50.0		11.8		62.0	ug/L		100 (75%-125%)		03/28/17	16:09
QC1203753027	419050001	SDILT									
Lithium		J	2.40	U	ND	ug/L	N/A	(0%-10%)		03/28/17	15:48
QC1203753028	419050004	SDILT									
Lithium			11.8	J	2.30	ug/L	2.37	(0%-10%)		03/28/17	16:11

Rad Gas Flow											
Batch	1651322										
QC1203756438	419050008	DUP									
Radium-228			U	0.183	U	0.533	pCi/L	N/A		N/A AXM6	04/12/17 11:57
QC1203756439	LCS										
Radium-228	6.89				7.20	pCi/L		104 (75%-125%)		04/12/17	10:46
QC1203756437	MB										
Radium-228				U	0.0782	pCi/L				04/12/17	10:45

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QC Summary

Workorder: 419050

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch	1651334										
QC1203756467	419050012	DUP									
Radium-226		1.15		0.937	pCi/L	20.4		(0% - 100%)	MXH8	04/14/17	11:00
QC1203756469	LCS										
Radium-226	26.0			21.7	pCi/L		83.4	(75%-125%)		04/14/17	11:00
QC1203756466	MB										
Radium-226			U	0.00	pCi/L					04/14/17	11:00
QC1203756468	419050012	MS									
Radium-226	130	1.15		129	pCi/L		98.3	(75%-125%)		04/14/17	11:00

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- NI See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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QC Summary

Workorder: 419050

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Q											
Q											
R											
R											
R											
U											
U											
UI											
UI											
UJ											
UJ											
UL											
UL											
X											
X											
Y											
Y											
Z											
Z											
^											
^											
d											
d											
e											
e											
h											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

January 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26297**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: March 20, 2017 13:35
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 170322002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.83	0.50	mg/L	3/24/17 06:18	EB
pH by SM4500HB(2011)	5.26	0.00	S.U.	3/23/17 14:53	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	3/24/17 06:18	EB
Total Dissolved Solid-SM2540C	31	2.0	mg/L	3/24/17 15:00	BF

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26298**

Wateree NPDES Well MW 1 (NPDES)

Date & Time Sampled: March 20, 2017 14:35
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAG01TDS

MW 1

Login Record File: 170322002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	4.77	0.50	mg/L	3/24/17 06:18	EB
pH by SM4500HB(2011)	5.50	0.00	S.U.	3/23/17 14:53	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	3/24/17 06:18	EB
Total Dissolved Solid-SM2540C	26	2.0	mg/L	3/24/17 15:00	BF

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26303**

Wateree Well FGD-02 (NPDES/CCR)

Date & Time Sampled: March 21, 2017 10:50
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 170322002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.6	0.50	mg/L	3/24/17 06:18	EB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.71	0.00	S.U.	3/23/17 14:53	BF
Sulfates by IC EPA 300.0	5.08	0.50	mg/L	3/24/17 06:18	EB
Total Dissolved Solid-SM2540C	57	2.0	mg/L	3/24/17 15:00	BF

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26305**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: March 21, 2017 12:05
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03

Login Record File: 170322002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.73	0.50	mg/L	3/24/17 06:18	EB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.58	0.00	S.U.	3/23/17 14:53	BF
Sulfates by IC EPA 300.0	35.3	0.50	mg/L	3/24/17 06:18	EB
Total Dissolved Solid-SM2540C	111	2.0	mg/L	3/24/17 15:00	BF

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26306**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: March 21, 2017 12:45
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 170322002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.35	0.50	mg/L	3/24/17 06:18	EB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.55	0.00	S.U.	3/23/17 14:53	BF
Sulfates by IC EPA 300.0	3.65	0.50	mg/L	3/24/17 06:18	EB
Total Dissolved Solid-SM2540C	39	2.0	mg/L	3/24/17 15:00	BF

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26309**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: March 21, 2017 13:50
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 170322002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	13.3	0.50	mg/L	3/24/17 06:18	EB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.68	0.00	S.U.	3/23/17 14:53	BF
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	3/24/17 06:18	EB
Total Dissolved Solid-SM2540C	48	2.0	mg/L	3/24/17 15:00	BF

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26324**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: March 20, 2017 13:35
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD01TM

FGD-01

Login Record File: 170323001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Barium by ICP-OES 200.7	82.3	10.0	ppb	3/24/17 12:00	MC
Beryllium EPA 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Boron - EPA 200.7	Less than	1000	ppb	3/24/17 12:00	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Calcium EPA 200.7	832	100	ppb	3/24/17 12:00	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Cobalt by ICP_MS 200.8	1.2	1.0	ppb	3/28/17 14:19	MC
Lead by ICP-MS 200.8	1.1	1.0	ppb	3/28/17 14:19	MC
Lithium (CWA) 200.7	2.2	2.0	ppb	3/24/17 12:00	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	3/24/17 14:55	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	3/28/17 14:19	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26325**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: March 20, 2017 14:35
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAG01TM

MW 1

Login Record File: 170323001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Barium by ICP-OES 200.7	56.0	10.0	ppb	3/24/17 12:00	MC
Beryllium EPA 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Boron - EPA 200.7	Less than	1000	ppb	3/24/17 12:00	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Calcium EPA 200.7	1510	100	ppb	3/24/17 12:00	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Lead by ICP-MS 200.8	1.6	1.0	ppb	3/28/17 14:19	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	3/24/17 14:55	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	3/28/17 14:19	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26330**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: March 21, 2017 10:50
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 170323001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Barium by ICP-OES 200.7	80.2	10.0	ppb	3/24/17 12:00	MC
Beryllium EPA 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Boron - EPA 200.7	Less than	1000	ppb	3/24/17 12:00	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Calcium EPA 200.7	5320	100	ppb	3/24/17 12:00	MC
Chromium by ICP_MS 200.8	1.3	1.0	ppb	3/28/17 14:19	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Lead by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Lithium (CWA) 200.7	2.3	2.0	ppb	3/24/17 12:00	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	3/24/17 14:55	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	3/28/17 14:19	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26332**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: March 21, 2017 12:05
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD03TM

FGD-03

Login Record File: 170323001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Barium by ICP-OES 200.7	44.5	10.0	ppb	3/24/17 12:00	MC
Beryllium EPA 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Boron - EPA 200.7	Less than	1000	ppb	3/24/17 12:00	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Calcium EPA 200.7	16400	100	ppb	3/24/17 12:00	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Lead by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	3/24/17 14:55	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	3/28/17 14:19	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26333**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: March 21, 2017 12:45
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD04TM

FGD-04

Login Record File: 170323001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Barium by ICP-OES 200.7	79.6	10.0	ppb	3/24/17 12:00	MC
Beryllium EPA 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Boron - EPA 200.7	Less than	1000	ppb	3/24/17 12:00	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Calcium EPA 200.7	2830	100	ppb	3/24/17 12:00	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Lead by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	3/24/17 12:00	MC
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	3/24/17 14:55	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	3/28/17 14:19	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC

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 31, 2018

REPORT TO:
Mike Moore C221

Sample ID: **AB26336**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: March 21, 2017 13:50
 Date & Time Submitted: March 22, 2017 13:30
 Collected by: A.HILL Location Code: WAFGD05TM

FGD-05

Login Record File: 170323001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Barium by ICP-OES 200.7	101	10.0	ppb	3/24/17 12:29	MC
Beryllium EPA 200.7	Less than	2.0	ppb	3/24/17 12:29	MC
Boron - EPA 200.7	Less than	1000	ppb	3/24/17 12:29	MC
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Calcium EPA 200.7	822	100	ppb	3/24/17 12:29	MC
Chromium by ICP_MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Cobalt by ICP_MS 200.8	1.3	1.0	ppb	3/28/17 14:19	MC
Lead by ICP-MS 200.8	1.6	1.0	ppb	3/28/17 14:19	MC
Lithium (CWA) 200.7	Less than	2.0	ppb	3/24/17 12:29	MC
Mercury (CWA) by EPA 245.2	0.20	0.2	ppb	3/24/17 14:55	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	3/28/17 14:19	MC
Selenium by ICP-MS 200.8	Less than	5.0	ppb	3/28/17 14:19	MC
Thallium by ICP-MS 200.8	Less than	1.0	ppb	3/28/17 14:19	MC

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

Approved By: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 05/22/2017

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.980	4.330
Field Sp. Conductivity micromhos/cm		68.000	54.000
Field Turbidity NTU		2.70	3.60
ORP mV		198.800	289.100
Oxygen, dissolved mg/L		4.950	2.890
Temp (Celcius) degrees C		22.100	18.610
Water level elevation ft		114.91	116.15

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 05/23/2017

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		4.860	5.540	4.040	4.500
Field Sp. Conductivity micromhos/cm		80.000	190.000	61.000	86.000
Field Turbidity NTU		3.10	82.30	1.80	1.70
ORP mV		170.200	121.600	229.800	224.700
Oxygen, dissolved mg/L		2.330	2.810	1.240	1.180
Temp (Celcius) degrees C		18.720	19.770	18.440	18.040
Water level elevation ft		105.13	105.87	107.68	108.44

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 424119 GEL Work Order: 424119

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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

Reviewed by _____



GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: June 21, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-01	Project: SCEG01716c
Sample ID: 424119001	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 22-MAY-17 12:30	
Receive Date: 25-MAY-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	06/05/17	1622	1669569	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	05/27/17	1802	1668713	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.32	3.00	pCi/L			BXF1	06/21/17	1113	1668805	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.572	0.284	1.00	pCi/L			MXH8	06/20/17	0925	1668820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	05/26/17	0852	1668711

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			86.3	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: June 21, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-1A	Project: SCEG01716c
Sample ID: 424119002	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 22-MAY-17 13:00	
Receive Date: 25-MAY-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	06/05/17	1748	1669569	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	05/27/17	1805	1668713	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.54	3.00	pCi/L			BXF1	06/21/17	1113	1668805	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	ND	0.314	1.00	pCi/L			MXH8	06/20/17	0925	1668820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	05/26/17	0852	1668711

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.6	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: June 21, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-03	Project: SCEG01716c
Sample ID: 424119008	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 23-MAY-17 09:45	
Receive Date: 25-MAY-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0622	0.033	0.100	mg/L		1	MAR1	06/05/17	2139	1669569	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	05/27/17	1831	1668713	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.25	3.00	pCi/L			BXF1	06/21/17	1114	1668805	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	ND	0.299	1.00	pCi/L			MXH8	06/20/17	0955	1668820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	05/26/17	0852	1668711

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

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

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: June 21, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-02	Project: SCEG01716c
Sample ID: 424119009	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 23-MAY-17 10:30	
Receive Date: 25-MAY-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	06/05/17	2208	1669569	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	05/27/17	1834	1668713	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.59	3.00	pCi/L			BXF1	06/21/17	1118	1668805	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	ND	0.351	1.00	pCi/L			MXH8	06/20/17	0955	1668820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	05/26/17	0852	1668711

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			88.3	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: June 21, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-04	Project: SCEG01716c
Sample ID: 424119010	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 23-MAY-17 11:40	
Receive Date: 25-MAY-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0363	0.033	0.100	mg/L		1	MAR1	06/05/17	2237	1669569	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	05/27/17	1837	1668713	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		2.02	1.88	3.00	pCi/L			BXF1	06/21/17	1118	1668805	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.398	0.339	1.00	pCi/L			MXH8	06/20/17	0955	1668820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	05/26/17	0852	1668711

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			75.7	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: June 21, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-05	Project: SCEG01716c
Sample ID: 424119011	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 23-MAY-17 12:50	
Receive Date: 25-MAY-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MAR1	06/05/17	2306	1669569	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	05/27/17	1840	1668713	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		1.94	1.16	3.00	pCi/L			BXF1	06/21/17	1118	1668805	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.744	0.249	1.00	pCi/L			MXH8	06/20/17	0955	1668820	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	05/26/17	0852	1668711

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			89.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: June 21, 2017

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 424119

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1669569										
QC1203800278	424119001	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		MAR1	06/05/17	16:51
QC1203800279	424119011	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A			06/05/17	23:35
QC1203800277	LCS										
Fluoride	2.50				2.66	mg/L	106	(90%-110%)		06/05/17	15:53
QC1203800276	MB										
Fluoride			U		ND	mg/L				06/05/17	15:24
QC1203800280	424119001	PS									
Fluoride	2.50	U	ND		2.63	mg/L	105	(90%-110%)		06/05/17	17:19
QC1203800281	424119011	PS									
Fluoride	2.50	U	ND		2.71	mg/L	107	(90%-110%)		06/06/17	00:04
Metals Analysis - ICPMS											
Batch	1668713										
QC1203798168	424115001	DUP									
Lithium			12.4		12.2	ug/L	0.919 ^	(+/-10.0)	BAJ	05/27/17	17:12
QC1203798169	424115002	DUP									
Lithium		J	8.90	J	9.32	ug/L	4.65 ^	(+/-10.0)		05/27/17	17:31
QC1203798167	LCS										
Lithium	50.0				52.4	ug/L	105	(80%-120%)		05/27/17	17:05
QC1203798166	MB										
Lithium			U		ND	ug/L				05/27/17	17:02

GEL LABORATORIES LLC

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QC Summary

Workorder: 424119

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1668713										
QC1203798170	424115001	MS									
Lithium	50.0	12.4		61.0	ug/L		97.3	(75%-125%)	BAJ	05/27/17	17:15
QC1203798171	424115002	MS									
Lithium	50.0	J	8.90	59.6	ug/L		101	(75%-125%)		05/27/17	17:34
QC1203798172	424115001	SDILT									
Lithium		12.4	J	2.45	ug/L	.777		(0%-10%)		05/27/17	17:18
QC1203798173	424115002	SDILT									
Lithium		J	8.90	U	ND	ug/L	N/A	(0%-10%)		05/27/17	17:37
Rad Gas Flow											
Batch	1668805										
QC1203798412	424119008	DUP									
Radium-228		U	0.638	U	0.561	pCi/L	N/A		N/A	BXF1	06/21/17 11:18
QC1203798413	LCS										
Radium-228	20.2			18.8	pCi/L		93.1	(75%-125%)		06/21/17	11:18
QC1203798411	MB										
Radium-228		U	-0.0329		pCi/L					06/21/17	11:18
Rad Ra-226											
Batch	1668820										
QC1203798460	424119006	DUP									
Radium-226		U	0.227	U	0.347	pCi/L	N/A		N/AMXH8	06/20/17	10:26
QC1203798462	LCS										
Radium-226	26.0			23.2	pCi/L		89.5	(75%-125%)		06/20/17	10:26
QC1203798459	MB										
Radium-226		U	-0.0475		pCi/L					06/20/17	09:55

GEL LABORATORIES LLC

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QC Summary

Workorder: 424119

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch		1668820									
		QC1203798461	424119006	MS							
Radium-226	130	U	0.227		110	pCi/L	84.5	(75%-125%)	MXH8	06/20/17	10:26

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

GEL LABORATORIES LLC

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QC Summary

Workorder: 424119

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Y											
Z											
^											
d											
e											
h											

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

May 25, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27171**

Wateree Well FGD-01 (NPDES/CCR)

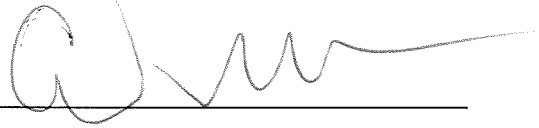
Date & Time Sampled: May 22, 2017 12:30
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	4.77	0.50	mg/L	5/25/17 16:23	BB
pH by SM4500HB(2011)	4.87	0.00	S.U.	5/24/17 09:30	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	5/25/17 16:23	BB
Total Dissolved Solid-SM2540C	35	2.0	mg/L	5/25/17 14:00	BF

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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May 25, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27172**

Wateree NPDES Well MW 1 (NPDES)

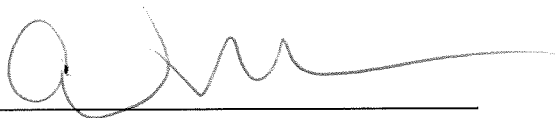
Date & Time Sampled: May 22, 2017 13:00
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAG01TDS

MW 1

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	4.60	0.50	mg/L	5/25/17 16:23	BB
pH by SM4500HB(2011)	4.65	0.00	S.U.	5/24/17 09:30	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	5/25/17 16:23	BB
Total Dissolved Solid-SM2540C	32	2.0	mg/L	5/25/17 14:00	BF

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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May 25, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27178**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: May 23, 2017 09:45
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.9	0.50	mg/L	5/25/17 16:23	BB
pH by SM4500HB(2011)	6.22	0.00	S.U.	5/24/17 09:30	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	22.0	0.50	mg/L	5/25/17 16:23	BB
Total Dissolved Solid-SM2540C	95	2.0	mg/L	5/25/17 14:00	BF

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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May 25, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27179**

Wateree Well FGD-02 (NPDES/CCR)

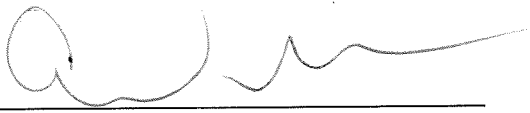
Date & Time Sampled: May 23, 2017 10:30
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.3	0.50	mg/L	5/25/17 16:23	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.33	0.00	S.U.	5/24/17 09:30	BF
Sulfates by IC EPA 300.0	5.8	0.50	mg/L	5/25/17 16:23	BB
Total Dissolved Solid-SM2540C	56	2.0	mg/L	5/25/17 14:00	BF

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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 Fax: (803) 217-9911

May 25, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27180**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: May 23, 2017 11:40
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.7	0.50	mg/L	5/25/17 16:23	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	4.55	0.00	S.U.	5/24/17 09:30	BF
Sulfates by IC EPA 300.0	4.2	0.50	mg/L	5/25/17 16:23	BB
Total Dissolved Solid-SM2540C	42	2.0	mg/L	5/25/17 14:00	BF

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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 Tel: (803)217-9384
 Fax: (803) 217-9911

May 25, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27181**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: May 23, 2017 12:50
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	12.0	0.50	mg/L	5/25/17 16:23	BB
pH by SM4500HB(2011)	5.09	0.00	S.U.	5/24/17 09:30	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	1.97	0.50	mg/L	5/25/17 16:23	BB
Total Dissolved Solid-SM2540C	52	2.0	mg/L	5/25/17 14:00	BF

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
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 Tel: (803)217-9384
 Fax: (803) 217-9911

June 02, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27182**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: May 22, 2017 12:30
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD01TM

FGD-01

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Barium by ICP-OES 200.7	66.0	10.0	ppb	5/25/17 11:45	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	5/25/17 11:45	CDB
Boron - EPA 200.7	Less than	1000	ppb	5/25/17 11:45	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Calcium EPA 200.7	669	100	ppb	5/25/17 11:45	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lead by ICP-MS 200.8	1.64	1.0	ppb	5/25/17 17:00	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	5/25/17 11:45	CDB
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/30/17 15:56	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	5/30/17 14:33	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	5/25/17 17:00	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB

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

Approved By: _____



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 Tel: (803)217-9384
 Fax: (803) 217-9911

June 02, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27183**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: May 22, 2017 13:00
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAG01TM

MW 1

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Barium by ICP-OES 200.7	53.2	10.0	ppb	5/25/17 10:39	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	5/25/17 10:39	CDB
Boron - EPA 200.7	Less than	1000	ppb	5/25/17 10:39	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Calcium EPA 200.7	677	100	ppb	5/25/17 10:39	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lead by ICP-MS 200.8	1.11	1.0	ppb	5/25/17 17:00	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	5/25/17 10:39	CDB
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/30/17 15:56	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	5/30/17 14:33	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	5/25/17 17:00	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB

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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June 02, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27189**

Wateree Well FGD-03 TM (NPDES/CCR)

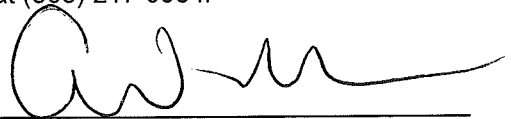
Date & Time Sampled: May 23, 2017 09:45
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD03TM

FGD-03

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Barium by ICP-OES 200.7	34.9	10.0	ppb	5/30/17 08:56	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	5/30/17 08:56	CDB
Boron - EPA 200.7	Less than	1000	ppb	5/30/17 08:56	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Calcium EPA 200.7	14300	1000	ppb	5/30/17 08:56	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lead by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	5/30/17 08:56	CDB
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/30/17 15:56	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	5/30/17 14:33	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	5/25/17 17:00	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB

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
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June 02, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27190**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: May 23, 2017 10:30
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Barium by ICP-OES 200.7	36.9	10.0	ppb	5/30/17 08:56	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	5/30/17 08:56	CDB
Boron - EPA 200.7	Less than	1000	ppb	5/30/17 08:56	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Calcium EPA 200.7	5503	100	ppb	5/30/17 08:56	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lead by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	5/30/17 08:56	CDB
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/30/17 15:56	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	5/30/17 14:33	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	5/25/17 17:00	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB

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
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June 02, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27191**

Wateree Well FGD-04 TM (NPDES/CCR)

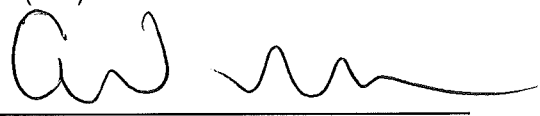
Date & Time Sampled: May 23, 2017 11:40
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD04TM

FGD-04

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Barium by ICP-OES 200.7	83.3	10.0	ppb	5/25/17 12:19	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	5/25/17 12:19	CDB
Boron - EPA 200.7	Less than	1000	ppb	5/25/17 12:19	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Calcium EPA 200.7	2400	1000	ppb	5/25/17 12:19	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lead by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	5/25/17 12:19	CDB
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	5/30/17 15:56	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	5/30/17 14:33	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	5/25/17 17:00	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB

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

June 02, 2017

REPORT TO:
Mike Moore C221

Sample ID: **AB27192**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: May 23, 2017 12:50
 Date & Time Submitted: May 23, 2017 15:55
 Collected by: A.HILL Location Code: WAFGD05TM

FGD-05

Login Record File: 170524001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Barium by ICP-OES 200.7	89.4	10.0	ppb	5/25/17 12:19	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	5/25/17 12:19	CDB
Boron - EPA 200.7	Less than	1000	ppb	5/25/17 12:19	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Calcium EPA 200.7	4016	1000	ppb	5/25/17 12:19	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lead by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	5/25/17 12:19	CDB
Mercury (CWA) by EPA 245.2	0.51	0.2	ppb	5/30/17 15:56	PRC
Molybdenum - EPA 200.8	Less than	1.0	ppb	5/30/17 14:33	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	5/25/17 17:00	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	5/25/17 17:00	CDB

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

Approved By: 

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 07/10/2017

Time Sampled: 12:00:00PM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A
NAME	Lab. Certificate No.	32006
Field pH S.U.		4.320
Field Sp. Conductivity micromhos/cm		53.000
Field Turbidity NTU		1.50
ORP mV		225.400
Oxygen, dissolved mg/L		3.640
Temp (Celcius) degrees C		21.610
Water level elevation ft		114.44

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 07/24/2017

Time Sampled: 12:00:00PM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.			4.470
Field Sp. Conductivity micromhos/cm			66.000
Field Turbidity NTU			4.70
ORP mV			316.600
Oxygen, dissolved mg/L			3.480
Temp (Celsius) degrees C			17.320
Water level elevation ft		114.87	116.15

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 07/26/2017

Time Sampled: 12:00:00PM

year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006	32006	32006
Field pH S.U.		4.500	5.270	4.180	5.480
Field Sp. Conductivity micromhos/cm		70.000	110.000	63.000	180.000
Field Turbidity NTU		2.10	91.40	2.10	3.10
ORP mV		236.800	201.800	253.700	90.900
Oxygen, dissolved mg/L		2.540	2.820	1.420	1.110
Temp (Celcius) degrees C		18.930	19.380	19.010	19.860
Water level elevation ft		105.12	105.81	107.51	108.21

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 427697 GEL Work Order: 427697

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: July 26, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-01A	Project: SCEG01716c
Sample ID: 427697001	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 10-JUL-17 09:15	
Receive Date: 12-JUL-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0398	0.033	0.100	mg/L		1	MXL2	07/17/17	1757	1682878	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	BAJ	07/14/17	1834	1681837	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		1.85	1.27	3.00	pCi/L			JXC9	07/19/17	1301	1682124	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.63	0.274	1.00	pCi/L			MXH8	07/19/17	0830	1682145	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	SXW1	07/13/17	0714	1681836

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			104	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: July 26, 2017

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 427697

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1682878										
QC1203832289	427697001	DUP									
Fluoride		J	0.0398	J	0.0386	mg/L	3.06 ^	(+/-0.100)	MXL2	07/17/17	18:25
QC1203832288	LCS										
Fluoride	2.50				2.36	mg/L		94.2	(90%-110%)	07/17/17	17:28
QC1203832287	MB										
Fluoride				U	ND	mg/L				07/17/17	16:59
QC1203832290	427697001	PS									
Fluoride	2.50	J	0.0398		2.40	mg/L		94.4	(90%-110%)	07/17/17	18:54
Metals Analysis - ICPMS											
Batch	1681837										
QC1203829734	427697001	DUP									
Lithium		U	ND	U	ND	ug/L	N/A		BAJ	07/14/17	18:38
QC1203829735	427697002	DUP									
Lithium		U	ND	U	ND	ug/L	N/A			07/14/17	18:57
QC1203829733	LCS										
Lithium	50.0				51.0	ug/L		102	(80%-120%)	07/14/17	18:31
QC1203829732	MB										
Lithium				U	ND	ug/L				07/14/17	18:28
QC1203829736	427697001	MS									
Lithium	50.0	U	ND		52.1	ug/L		101	(75%-125%)	07/14/17	18:41
QC1203829737	427697002	MS									
Lithium	50.0	U	ND		46.7	ug/L		93.1	(75%-125%)	07/14/17	19:00

GEL LABORATORIES LLC

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

QC Summary

Workorder: 427697

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1681837										
QC1203829738	427697001	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)	BAJ	07/14/17	18:44
QC1203829739	427697002	SDILT									
Lithium		U	ND	U	ND	ug/L	N/A	(0%-10%)		07/14/17	19:03
Rad Gas Flow											
Batch	1682124										
QC1203830399	427818004	DUP									
Radium-228		U	0.486	U	0.715	pCi/L	N/A	N/A	JXC9	07/19/17	13:07
QC1203830402	LCS										
Radium-228	20.0				18.9	pCi/L	94.4	(75%-125%)		07/19/17	13:07
QC1203830398	MB										
Radium-228				U	-0.157	pCi/L				07/19/17	13:07
QC1203830400	427818004	MS									
Radium-228	60.0	U	0.486		52.6	pCi/L	87.7	(75%-125%)		07/19/17	13:07
QC1203830401	427818004	MSD									
Radium-228	60.0	U	0.486		59.9	pCi/L	12.9	99.7	(0%-20%)	07/19/17	13:07
Rad Ra-226											
Batch	1682145										
QC1203830453	427818006	DUP									
Radium-226			0.837		0.585	pCi/L	35.5	(0% - 100%)	MXH8	07/19/17	09:35
QC1203830456	LCS										
Radium-226	26.0				23.3	pCi/L	89.6	(75%-125%)		07/19/17	09:35
QC1203830452	MB										
Radium-226				U	0.104	pCi/L				07/19/17	09:35

GEL LABORATORIES LLC

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

QC Summary

Workorder: 427697

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch	1682145										
QC1203830454	427818006	MS									
Radium-226	130	0.837		119	pCi/L		90.8	(75%-125%)	MXH8	07/19/17	09:35
QC1203830455	427818006	MSD									
Radium-226	130	0.837		105	pCi/L	11.9	80.6	(0%-20%)		07/20/17	04:15

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification

GEL LABORATORIES LLC

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

QC Summary

Workorder: 427697

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UJ											
UL											
X											
Y											
Z											
^											
d											
e											
h											

UJ Gamma Spectroscopy--Uncertain identification

UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

GEL LABORATORIES LLC

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

**Certificate of Analysis Report
for**

GEEL003 GEL Engineering, LLC

Client SDG: 428960 GEL Work Order: 428960

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: August 22, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-01	Project: SCEG01716c
Sample ID: 428960001	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 24-JUL-17 14:10	
Receive Date: 27-JUL-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0358	0.033	0.100	mg/L		1	MXL2	07/29/17	0505	1686433	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.13	2.00	10.0	ug/L	1.00	1	SKJ	08/15/17	1910	1686139	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.88	3.00	pCi/L			JXC9	08/21/17	1207	1692834	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.36	0.255	1.00	pCi/L			MXH8	08/15/17	0745	1686420	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JXM8	07/27/17	1702	1686136

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			91.5	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: August 22, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-AS-1	Project: SCEG01716c
Sample ID: 428960002	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 25-JUL-17 18:50	
Receive Date: 27-JUL-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0485	0.033	0.100	mg/L		1	MXL2	07/29/17	0534	1686433	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	3.43	2.00	10.0	ug/L	1.00	1	SKJ	08/15/17	1934	1686139	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	2.08	3.00	pCi/L			JXC9	08/21/17	1207	1692834	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.23	0.215	1.00	pCi/L			MXH8	08/15/17	0745	1686420	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JXM8	07/27/17	1702	1686136

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			93.5	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: August 22, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-03	Project: SCEG01716c
Sample ID: 428960005	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 26-JUL-17 08:15	
Receive Date: 27-JUL-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0499	0.033	0.100	mg/L		1	MXL2	07/29/17	0759	1686433	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	08/15/17	1946	1686139	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		4.65	1.98	3.00	pCi/L			JXC9	08/21/17	1209	1692834	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	ND	0.348	1.00	pCi/L			MXH8	08/15/17	0815	1686420	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JXM8	07/27/17	1702	1686136

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			97.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: August 22, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-02	Project: SCEG01716c
Sample ID: 428960006	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 26-JUL-17 08:55	
Receive Date: 27-JUL-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	MXL2	07/29/17	0828	1686433	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	J	2.49	2.00	10.0	ug/L	1.00	1	SKJ	08/15/17	1950	1686139	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228		4.49	2.53	3.00	pCi/L			JXC9	08/21/17	1210	1692834	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.946	0.259	1.00	pCi/L			MXH8	08/15/17	0815	1686420	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JXM8	07/27/17	1702	1686136

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			96	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: August 22, 2017

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Charleston, South Carolina 29417
Contact: Robert Gardner
Project: Wateree CCR

Client Sample ID: FGD-04
Sample ID: 428960007
Matrix: Ground Water
Collect Date: 26-JUL-17 10:05
Receive Date: 27-JUL-17
Collector: Client

Project: SCEG01716c
Client ID: GEEL003

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0421	0.033	0.100	mg/L		1	MXL2	07/29/17	0857	1686433	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	08/15/17	1954	1686139	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	1.86	3.00	pCi/L			JXC9	08/21/17	1329	1692834	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.609	0.233	1.00	pCi/L			MXH8	08/15/17	0815	1686420	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JXM8	07/27/17	1702	1686136

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			90.3	(15%-125%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: August 22, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: FGD-05	Project: SCEG01716c
Sample ID: 428960008	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 26-JUL-17 11:00	
Receive Date: 27-JUL-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	J	0.0406	0.033	0.100	mg/L		1	MXL2	07/29/17	0925	1686433	1
Metals Analysis-ICP-MS												
200.8/200.2 NPDES Metals "As Received"												
Lithium	U	ND	2.00	10.0	ug/L	1.00	1	SKJ	08/15/17	1958	1686139	2
Rad Gas Flow Proportional Counting												
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	ND	2.12	3.00	pCi/L			JXC9	08/21/17	1210	1692834	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		0.460	0.251	1.00	pCi/L			MXH8	08/15/17	0815	1686420	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	JXM8	07/27/17	1702	1686136

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 200.8 SC_NPDES	
3	EPA 904.0/SW846 9320 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid "As Received"			95.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: August 22, 2017

Page 1 of 4

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 428960

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1686433										
QC1203840942	428957001	DUP									
Fluoride		J	0.038	J	0.038	mg/L	0	^	(+/-0.100) MXL2	07/28/17	21:52
QC1203840943	428960008	DUP									
Fluoride		J	0.0406	J	0.041	mg/L	0.98	^	(+/-0.100)	07/29/17	09:54
QC1203840941	LCS										
Fluoride	2.50				2.35	mg/L	93.9		(90%-110%)	07/28/17	20:54
QC1203840940	MB										
Fluoride			U		ND	mg/L				07/28/17	20:25
QC1203840944	428957001	PS									
Fluoride	2.50	J	0.038		2.33	mg/L	91.6		(90%-110%)	07/28/17	22:20
QC1203840945	428960008	PS									
Fluoride	2.50	J	0.0406		2.34	mg/L	92.1		(90%-110%)	07/29/17	10:23
Metals Analysis - ICPMS											
Batch	1686139										
QC1203840299	428960001	DUP									
Lithium		J	2.13	J	2.13	ug/L	0.235	^	(+/-10.0) SKJ	08/15/17	19:14
QC1203840298	LCS										
Lithium	50.0				51.1	ug/L	102		(80%-120%)	08/15/17	19:06
QC1203840297	MB										
Lithium			U		ND	ug/L				08/15/17	19:03
QC1203840300	428960001	MS									
Lithium	50.0	J	2.13		53.0	ug/L	102		(75%-125%)	08/15/17	19:18

GEL LABORATORIES LLC

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QC Summary

Workorder: 428960

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	1686139										
QC1203840301	428960001	SDILT									
Lithium	J	2.13	U	ND	ug/L	N/A		(0%-10%)	SKJ	08/15/17	19:22
Rad Gas Flow											
Batch	1692834										
QC1203856709	428957008	DUP									
Radium-228		4.94	U	1.31	pCi/L	116*		(0% - 100%)	JXC9	08/21/17	12:08
QC1203856710	LCS										
Radium-228	19.8			21.6	pCi/L		109	(75%-125%)		08/21/17	12:08
QC1203856708	MB										
Radium-228			U	1.31	pCi/L					08/21/17	12:08
Rad Ra-226											
Batch	1686420										
QC1203840913	428957008	DUP									
Radium-226		1.31		1.32	pCi/L	0.412		(0% - 100%)	MXH8	08/15/17	08:15
QC1203840915	LCS										
Radium-226	26.0			24.8	pCi/L		95.7	(75%-125%)		08/15/17	08:45
QC1203840912	MB										
Radium-226			U	0.0314	pCi/L					08/15/17	08:15
QC1203840914	428957008	MS									
Radium-226	130	1.31		124	pCi/L		94.3	(75%-125%)		08/15/17	08:15

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.

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QC Summary

Workorder: 428960

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
BD											
E											
E											
FA											
FB											
H											
J											
K											
L											
M											
M											
N											
N/A											
NI											
ND											
NJ											
Q											
R											
R											
U											
UI											
UJ											
UL											
X											
Y											
Z											
^											
d											
e											
h											

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QC Summary

Workorder: 428960

Page 4 of 4

<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	--------------------	-----------	--------------	-------------	-------------	--------------	--------------	-------------	-------------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

January 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27797**

Wateree NPDES Well MW 1 (NPDES)

Date & Time Sampled: July 10, 2017 09:15
 Date & Time Submitted: July 11, 2017 09:54
 Collected by: S.SANSBURY Location Code: WAG01TDS

MW 1

Login Record File: 170711003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.37	0.50	mg/L	7/12/17 16:17	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	4.73	0.00	S.U.	7/11/17 10:33	BF
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	7/12/17 16:17	BB
Total Dissolved Solid-SM2540C	33	2.0	mg/L	7/12/17 16:10	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27945**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: July 24, 2017 14:10
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 170726002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.84	0.50	mg/L	7/27/17 13:37	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	4.86	0.00	S.U.	7/31/17 11:53	PRC
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	7/27/17 13:37	BB
Total Dissolved Solid-SM2540C	22	2.0	mg/L	7/28/17 12:10	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27946**

Wateree Well FGD AS1 (NPDES/CCR)

Date & Time Sampled: July 25, 2017 18:50
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGDAS1TDS

FGD-01

Login Record File: 170726002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.33	0.50	mg/L	7/27/17 13:37	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.10	0.00	S.U.	7/31/17 11:53	PRC
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	7/27/17 13:37	BB
Total Dissolved Solid-SM2540C	42	2.0	mg/L	8/1/17 12:10	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27949**

Wateree Well FGD-03 (NPDES/CCR)

Date & Time Sampled: July 26, 2017 08:15
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03

Login Record File: 170726002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	8.49	0.50	mg/L	7/27/17 13:37	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	6.02	0.00	S.U.	7/31/17 11:53	PRC
Sulfates by IC EPA 300.0	16.97	0.50	mg/L	7/27/17 13:37	BB
Total Dissolved Solid-SM2540C	75	2.0	mg/L	8/1/17 12:10	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27950**

Wateree Well FGD-02 (NPDES/CCR)

Date & Time Sampled: July 26, 2017 08:55
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 170726002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.99	0.50	mg/L	7/27/17 13:37	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.03	0.00	S.U.	7/31/17 11:53	PRC
Sulfates by IC EPA 300.0	3.57	0.50	mg/L	7/27/17 13:37	BB
Total Dissolved Solid-SM2540C	39	2.0	mg/L	8/1/17 12:10	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27951**

Wateree Well FGD-04 (NPDES/CCR)

Date & Time Sampled: July 26, 2017 10:05
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 170726002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.90	0.50	mg/L	7/27/17 13:37	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	4.71	0.00	S.U.	7/31/17 11:53	PRC
Sulfates by IC EPA 300.0	4.75	0.50	mg/L	7/27/17 13:37	BB
Total Dissolved Solid-SM2540C	29	2.0	mg/L	8/1/17 12:10	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27952**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: July 26, 2017 11:00
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 170726002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	12.16	0.50	mg/L	7/27/17 13:37	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.92	0.00	S.U.	7/31/17 11:53	PRC
Sulfates by IC EPA 300.0	16.06	0.50	mg/L	7/27/17 13:37	BB
Total Dissolved Solid-SM2540C	98	2.0	mg/L	8/1/17 12:10	BF

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27764**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: July 10, 2017 09:15
 Date & Time Submitted: July 11, 2017 09:54
 Collected by: S.SANSBURY Location Code: WAG01TM

MW 1

Login Record File: 170711001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	7/13/17 13:48	CDB
Arsenic by ICP_MS 200.8	Less than	2.0	ppb	7/13/17 13:48	CDB
Barium by ICP-OES 200.7	54.9	10.0	ppb	7/13/17 10:10	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	7/13/17 10:10	CDB
Boron - EPA 200.7	Less than	1000	ppb	7/13/17 10:10	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	7/13/17 13:48	CDB
Calcium EPA 200.7	700	100	ppb	7/13/17 10:10	CDB
Chromium by ICP_MS 200.8	Less than	2.0	ppb	7/13/17 13:48	CDB
Cobalt by ICP_MS 200.8	Less than	2.0	ppb	7/13/17 13:48	CDB
Lead by ICP-MS 200.8	1.2	1.0	ppb	7/13/17 13:48	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	7/13/17 10:10	CDB
Mercury (CWA) by EPA 245.2	Less than	0.2	ppb	7/14/17 12:28	MC
Molybdenum - EPA 200.8	Less than	1.0	ppb	7/13/17 13:48	CDB
Selenium by ICP-MS 200.8	Less than	10.0	ppb	7/13/17 13:48	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	7/13/17 13:48	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27965**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: July 24, 2017 14:10
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD01TM

FGD-01

Login Record File: 170726003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Barium by ICP-OES 200.7	78.2	10.0	ppb	7/31/17 13:57	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Boron - EPA 200.7	Less than	1000	ppb	7/31/17 13:57	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Calcium EPA 200.7	1909	1000	ppb	7/31/17 13:57	CDB
Chromium by ICP_MS 200.8	1.2	1.0	ppb	8/2/17 12:39	CDB
Cobalt by ICP_MS 200.8	1.1	1.0	ppb	8/2/17 12:39	CDB
Lead by ICP-MS 200.8	1.2	1.0	ppb	8/2/17 12:39	CDB
Lithium (CWA) 200.7	2.4	2.0	ppb	7/31/17 13:57	CDB
Mercury - 7470A (RCRA)	Less than	0.2	ppb	8/1/17 14:16	MC
Molybdenum - EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	8/2/17 12:39	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27966**

Wateree Well FGD-AS-1 TM (NPDES/CCR)

Date & Time Sampled: July 25, 2017 18:50
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGDAS1TM

FGD-05

Login Record File: 170726003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Barium by ICP-OES 200.7	91.4	10.0	ppb	7/31/17 13:57	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Boron - EPA 200.7	Less than	1000	ppb	7/31/17 13:57	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Calcium EPA 200.7	1067	1000	ppb	7/31/17 13:57	CDB
Chromium by ICP_MS 200.8	1.0	1.0	ppb	8/2/17 12:39	CDB
Cobalt by ICP_MS 200.8	2.6	1.0	ppb	8/2/17 12:39	CDB
Lead by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Lithium (CWA) 200.7	3.1	2.0	ppb	7/31/17 13:57	CDB
Mercury - 7470A (RCRA)	Less than	0.2	ppb	8/1/17 14:16	MC
Molybdenum - EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	8/2/17 12:39	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27969**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: July 26, 2017 08:15
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD03TM

FGD-03

Login Record File: 170726003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Barium by ICP-OES 200.7	42.0	10.0	ppb	7/31/17 13:57	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Boron - EPA 200.7	Less than	1000	ppb	7/31/17 13:57	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Calcium EPA 200.7	12920	1000	ppb	7/31/17 13:57	CDB
Chromium by ICP_MS 200.8	2.3	1.0	ppb	8/2/17 12:39	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Lead by ICP-MS 200.8	1.1	1.0	ppb	8/2/17 12:39	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Mercury - 7470A (RCRA)	Less than	0.2	ppb	8/1/17 14:16	MC
Molybdenum - EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	8/2/17 12:39	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27970**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: July 26, 2017 08:55
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD02TM

FGD-02

Login Record File: 170726003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Barium by ICP-OES 200.7	74.1	10.0	ppb	7/31/17 13:57	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Boron - EPA 200.7	Less than	1000	ppb	7/31/17 13:57	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Calcium EPA 200.7	2915	1000	ppb	7/31/17 13:57	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Lead by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Lithium (CWA) 200.7	2.2	2.0	ppb	7/31/17 13:57	CDB
Mercury - 7470A (RCRA)	Less than	0.2	ppb	8/1/17 14:16	MC
Molybdenum - EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	8/2/17 12:39	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27971**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: July 26, 2017 10:05
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD04TM

FGD-04

Login Record File: 170726003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Barium by ICP-OES 200.7	75.4	10.0	ppb	7/31/17 13:57	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Boron - EPA 200.7	Less than	1000	ppb	7/31/17 13:57	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Calcium EPA 200.7	2507	100	ppb	7/31/17 13:57	CDB
Chromium by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Lead by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Lithium (CWA) 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Mercury - 7470A (RCRA)	Less than	0.2	ppb	8/1/17 14:16	MC
Molybdenum - EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	8/2/17 12:39	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB

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 31, 2018

REPORT TO:
Mike Moore

Sample ID: **AB27972**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: July 26, 2017 11:00
 Date & Time Submitted: July 26, 2017 12:38
 Collected by: A.HILL Location Code: WAFGD05TM

FGD-05

Login Record File: 170726003

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Antimony by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Arsenic by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Barium by ICP-OES 200.7	74.5	10.0	ppb	7/31/17 13:57	CDB
Beryllium EPA 200.7	Less than	2.0	ppb	7/31/17 13:57	CDB
Boron - EPA 200.7	Less than	1000	ppb	7/31/17 13:57	CDB
Cadmium by ICP_MS EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Calcium EPA 200.7	23470	1000	ppb	7/31/17 13:57	CDB
Chromium by ICP_MS 200.8	1.4	1.0	ppb	8/2/17 12:39	CDB
Cobalt by ICP_MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Lead by ICP-MS 200.8	1.0	1.0	ppb	8/2/17 12:39	CDB
Lithium (CWA) 200.7	2.2	2.0	ppb	7/31/17 13:57	CDB
Mercury - 7470A (RCRA)	0.385	0.2	ppb	8/1/17 14:16	MC
Molybdenum - EPA 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB
Selenium by ICP-MS 200.8	Less than	5.0	ppb	8/2/17 12:39	CDB
Thallium by ICP-MS 200.8	Less than	1.0	ppb	8/2/17 12:39	CDB

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

Approved By: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 09/26/2017

Time Sampled: 12:00:00AM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-AP-01A
NAME	Lab. Certificate No.	32006
Field pH S.U.		4.550
Field Sp. Conductivity micromhos/cm		40.000
Field Turbidity NTU		5.10
ORP mV		253.900
Oxygen, dissolved mg/L		5.390
Temp (Celcius) degrees C		21.530
Water level elevation ft		114.05

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 09/27/2017

Time Sampled: 12:00:00AM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	AS-FGD-01	MW-FGD-01
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.400	4.510
Field Sp. Conductivity micromhos/cm		45.000	37.000
Field Turbidity NTU		7.10	3.20
ORP mV		269.500	312.600
Oxygen, dissolved mg/L		3.760	3.580
Temp (Celcius) degrees C		21.360	19.340
Water level elevation ft		109.98	114.98

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 09/27/2017

Time Sampled: 12:00:00AM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-02	MW-FGD-03
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.880	5.550
Field Sp. Conductivity micromhos/cm		60.000	81.000
Field Turbidity NTU		4.10	9.00
ORP mV		252.600	208.000
Oxygen, dissolved mg/L		2.400	2.230
Temp (Celcius) degrees C		21.920	25.770
Water level elevation ft		104.97	105.61

Authorized Release By: _____

Date: _____

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL
GROUND-WATER MONITORING REPORT

Facility: Wateree Station

Permit No.: _____

County: Richland

Date Sampled: 09/28/2017

Time Sampled: 12:00:00AM

 year-month-day (Numerical)

STATION NUMBERS

PARAMETER	NUMBER	MW-FGD-04	MW-FGD-05
NAME	Lab. Certificate No.	32006	32006
Field pH S.U.		4.360	4.990
Field Sp. Conductivity micromhos/cm		51.000	85.000
Field Turbidity NTU		1.80	5.10
ORP mV		263.200	319.400
Oxygen, dissolved mg/L		1.160	2.780
Temp (Celcius) degrees C		20.510	21.730
Water level elevation ft		107.10	107.75

Authorized Release By: _____

Date: _____

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

GEEL003 GEL Engineering, LLC

Client SDG: 434131 GEL Work Order: 434131

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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

Reviewed by _____



GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 18, 2017

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

 Charleston, South Carolina 29417
 Contact: Robert Gardner
 Project: Wateree CCR

Client Sample ID: MW-1A	Project: SCEG01716c
Sample ID: 434131002	Client ID: GEEL003
Matrix: Ground Water	
Collect Date: 26-SEP-17 10:20	
Receive Date: 03-OCT-17	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA300.0 Fluoride in Liquid "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	JXH5	10/05/17	1351	1706773	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

QC Summary

Report Date: October 18, 2017

Page 1 of 2

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 434131

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1706773										
QC1203889579	434134001	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		JXH5	10/05/17	21:32
QC1203889683	434131001	DUP									
Fluoride			0.306		0.304	mg/L	0.557 ^	(+/-0.100)		10/05/17	12:53
QC1203889577	LCS										
Fluoride	2.50				2.35	mg/L		93.9 (90%-110%)		10/05/17	11:55
QC1203889576	MB										
Fluoride				U	ND	mg/L				10/05/17	11:26
QC1203889581	434134001	PS									
Fluoride	2.50	U	ND		2.53	mg/L		101 (90%-110%)		10/05/17	22:59
QC1203889684	434131001	PS									
Fluoride	2.50		0.306		2.56	mg/L		90.2 (90%-110%)		10/06/17	10:41

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- H Analytical holding time was exceeded
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- NI See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

GEL LABORATORIES LLC

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

QC Summary

Workorder: 434131

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
R											
R											
U											
X											
Z											
^											
d											
e											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

GEL LABORATORIES LLC

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

**Certificate of Analysis Report
for**

GEEL003 GEL Engineering, LLC

Client SDG: 434133 GEL Work Order: 434133

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- H Analytical holding time was exceeded
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by _____

GEL LABORATORIES LLC

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

QC Summary

Report Date: October 18, 2017

Page 1 of 2

GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Robert Gardner

Workorder: 434133

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	1706773										
QC1203889579	434134001	DUP									
Fluoride		U	ND	U	ND	mg/L	N/A		JXH5	10/05/17	21:32
QC1203889683	434131001	DUP									
Fluoride			0.306		0.304	mg/L	0.557 ^	(+/-0.100)		10/05/17	12:53
QC1203889577	LCS										
Fluoride	2.50				2.35	mg/L		93.9 (90%-110%)		10/05/17	11:55
QC1203889576	MB										
Fluoride				U	ND	mg/L				10/05/17	11:26
QC1203889581	434134001	PS									
Fluoride	2.50	U	ND		2.53	mg/L		101 (90%-110%)		10/05/17	22:59
QC1203889684	434131001	PS									
Fluoride	2.50		0.306		2.56	mg/L		90.2 (90%-110%)		10/06/17	10:41

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- H Analytical holding time was exceeded
- J Value is estimated
- N/A RPD or %Recovery limits do not apply.
- NI See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

GEL LABORATORIES LLC

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

QC Summary

Workorder: 434133

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
R											
R											
U											
X											
Z											
^											
d											
e											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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



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

September 28, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28773**

Wateree NPDES Well MW 1 (NPDES)

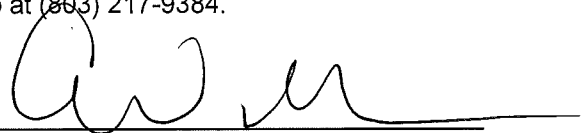
Date & Time Sampled: September 26, 2017 10:20
 Date & Time Submitted: September 27, 2017 10:34
 Collected by: A.HILL Location Code: WAG01TDS

MW 1

Login Record File: 170927001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	4.97	0.50	mg/L	9/28/17 09:25	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.43	0.00	S.U.	9/27/17 15:30	BF
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	9/28/17 09:25	BB
Total Dissolved Solid-SM2540C	27	2.0	mg/L	9/28/17 15:14	BF

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

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28841**

Wateree Well FGD-01 (NPDES/CCR)

Date & Time Sampled: September 27, 2017 14:15
 Date & Time Submitted: September 28, 2017 11:17
 Collected by: A.HILL Location Code: WAFGD01TDS

FGD-01

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	5.88	0.50	mg/L	9/29/17 10:59	BB
pH by SM4500HB(2011)	4.89	0.00	S.U.	9/28/17 11:50	BF
Holding Time of 15 minutes has been exceeded.					
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	9/29/17 10:59	BB
Total Dissolved Solid-SM2540C	29	2.0	mg/L	10/3/17 14:05	BF

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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 Fax: (803) 217-9911

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28842**

Wateree Well FGD-02 (NPDES/CCR)

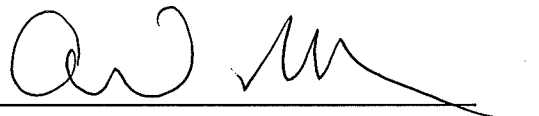
Date & Time Sampled: September 27, 2017 15:10
 Date & Time Submitted: September 28, 2017 11:17
 Collected by: A.HILL Location Code: WAFGD02TDS

FGD-02

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.06	0.50	mg/L	9/29/17 10:59	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.16	0.00	S.U.	9/28/17 11:50	BF
Sulfates by IC EPA 300.0	4.56	0.50	mg/L	9/29/17 10:59	BB
Total Dissolved Solid-SM2540C	46	2.0	mg/L	10/3/17 14:05	BF

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

Approved By: 



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October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28843**

Wateree Well FGD-03 (NPDES/CCR)

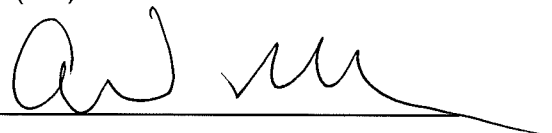
Date & Time Sampled: September 27, 2017 16:20
 Date & Time Submitted: September 28, 2017 11:17
 Collected by: A.HILL Location Code: WAFGD03TDS

FGD-03

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	7.51	0.50	mg/L	9/29/17 10:59	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.91	0.00	S.U.	9/28/17 11:50	BF
Sulfates by IC EPA 300.0	4.28	0.50	mg/L	9/29/17 10:59	BB
Total Dissolved Solid-SM2540C	61	2.0	mg/L	10/3/17 14:05	BF

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

Approved By: 



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October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28844**

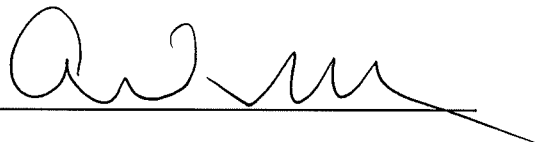
Wateree Well Field Blank (NPDES)

Date & Time Sampled: September 27, 2017 16:50
 Date & Time Submitted: September 28, 2017 11:17
 Collected by: A.HILL Location Code: WAFBTDS

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	0.68	0.50	mg/L	9/29/17 10:59	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	6.21	0.00	S.U.	9/28/17 11:50	BF
Sulfates by IC EPA 300.0	Less than	0.50	mg/L	9/29/17 10:59	BB
Total Dissolved Solid-SM2540C	Less than	2.0	mg/L	10/3/17 14:05	BF

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

Approved By: 



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October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28845**

Wateree Well FGD-04 (NPDES/CCR)


Date & Time Sampled: September 28, 2017 08:25
 Date & Time Submitted: September 28, 2017 11:17
 Collected by: A.HILL Location Code: WAFGD04TDS

FGD-04

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	6.09	0.50	mg/L	9/29/17 10:59	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	4.68	0.00	S.U.	9/28/17 11:50	BF
Sulfates by IC EPA 300.0	4.03	0.50	mg/L	9/29/17 10:59	BB
Total Dissolved Solid-SM2540C	33	2.0	mg/L	10/3/17 14:05	BF

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

Approved By: 



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 2102 North Lake Drive
 Columbia, SC 29212
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October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28846**

Wateree Well FGD-05 (NPDES/CCR)

Date & Time Sampled: September 28, 2017 09:15
 Date & Time Submitted: September 28, 2017 11:17
 Collected by: A.HILL Location Code: WAFGD05TDS

FGD-05

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Chlorides by IC EPA 300.0	13.90	0.50	mg/L	9/29/17 10:59	BB
pH by SM4500HB(2011) Holding Time of 15 minutes has been exceeded.	5.21	0.00	S.U.	9/28/17 11:50	BF
Sulfates by IC EPA 300.0	2.92	0.50	mg/L	9/29/17 10:59	BB
Total Dissolved Solid-SM2540C	53	2.0	mg/L	10/3/17 14:05	BF

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

September 28, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28794**

Wateree NPDES Well MW 1 Total Metals (NPDES)

Date & Time Sampled: September 26, 2017 10:20
 Date & Time Submitted: September 27, 2017 10:34
 Collected by: A.HILL Location Code: WAG01TM

MW 1

Login Record File: 170927001

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	9/28/17 13:34	MC
Calcium EPA 200.7	511	100	ppb	9/28/17 13:34	MC

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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Columbia, SC 29212
Tel: (803)217-9384
Fax: (803) 217-9911

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28856**

Wateree Well FGD-AS-1 TM (NPDES/CCR)

Date & Time Sampled: September 27, 2017 12:04
Date & Time Submitted: September 28, 2017 11:17
Collected by: A.HILL Location Code: WAFGDAS1TM

FGD-05

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	10/2/17 16:00	CDB
Calcium EPA 200.7	921	100	ppb	10/2/17 16:00	CDB

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

Approved By: 



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 Columbia, SC 29212
 Tel: (803)217-9384
 Fax: (803) 217-9911

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28859**

Wateree Well FGD-01 TM (NPDES/CCR)

Date & Time Sampled: September 27, 2017 14:15

Date & Time Submitted: September 28, 2017 11:17

Collected by: A.HILL


Location Code: WAFGD01TM

FGD-01

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	10/2/17 16:00	CDB
Calcium EPA 200.7	638	100	ppb	10/2/17 16:00	CDB

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

Approved By: 



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October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28860**

Wateree Well FGD-02 TM (NPDES/CCR)

Date & Time Sampled: September 27, 2017 15:10

Date & Time Submitted: September 28, 2017 11:17

Collected by: A.HILL

Location Code: WAFGD02TM

FGD-02

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	10/2/17 16:00	CDB
Calcium EPA 200.7	3498	1000	ppb	10/2/17 16:00	CDB

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

Approved By: 



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 2102 North Lake Drive
 Columbia, SC 29212
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 Fax: (803) 217-9911

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28861**

Wateree Well FGD-03 TM (NPDES/CCR)

Date & Time Sampled: September 27, 2017 16:20

Date & Time Submitted: September 28, 2017 11:17

Collected by: A.HILL

Location Code: WAFGD03TM

FGD-03

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	10/2/17 16:00	CDB
Calcium EPA 200.7	8778	1000	ppb	10/2/17 16:00	CDB

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

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28862**

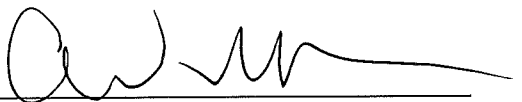
Wateree Well Field Blank T Metals (NPDES)

Date & Time Sampled: September 27, 2017 16:50
 Date & Time Submitted: September 28, 2017 11:17
 Collected by: A.HILL Location Code: WAFBTM

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	10/2/17 16:00	CDB
Calcium EPA 200.7	Less than	100	ppb	10/2/17 16:00	CDB

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

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28863**

Wateree Well FGD-04 TM (NPDES/CCR)

Date & Time Sampled: September 28, 2017 08:05

Date & Time Submitted: September 28, 2017 11:17

Collected by: A.HILL

Location Code: WAFGD04TM

FGD-04

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	10/2/17 16:00	CDB
Calcium EPA 200.7	1958	1000	ppb	10/2/17 16:00	CDB

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

October 03, 2017

REPORT TO:
Mike Moore

Sample ID: **AB28864**

Wateree Well FGD-05 TM (NPDES/CCR)

Date & Time Sampled: September 28, 2017 09:15

Date & Time Submitted: September 28, 2017 11:17

Collected by: A.HILL

Location Code: WAFGD05TM

FGD-05

Login Record File: 170928002

CERTIFIED BY SCDHEC (LAB ID 32006):	Result	Reporting Limit(MRL)	Units	Completed Analysis Date & Time	Chemist
Boron - EPA 200.7	Less than	1000	ppb	10/2/17 16:00	CDB
Calcium EPA 200.7	5429	1000	ppb	10/2/17 16:00	CDB

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

Approved By: 



APPENDIX B

Statistical Analysis of Detection Monitoring Groundwater Quality Results

Wateree Station
Detection Monitoring Summary

Run Id: 1

Location Id: MW-FGD-02

Compliance Test: Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Boron, total ug/L	07/26/2017	AB27970	--	--	< 1.000	n		--
Boron, total ug/L	09/27/2017	AB28860	--	--	< 1.000	n		--

Run Id: 2

Location Id: MW-FGD-02

Compliance Test: Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Calcium, tot ug/L	07/26/2017	AB27970	1 of 2	1.390	2.920	y		None
Calcium, tot ug/L	09/27/2017	AB28860	1 of 2	1.390	3.498	y		None

Run Id: 3

Location Id: MW-FGD-02

Compliance Test: Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Chlorides mg/L	07/26/2017	AB27950	1 of 2	7.451	6.990	n		--
Chlorides mg/L	09/27/2017	AB28842	1 of 2	7.451	7.060	n		--

Run Id: 4

Location Id: MW-FGD-02

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

January 18, 2018

1:58:59 PM

Detection Monitoring Summary

Run Id: 4

Location Id: MW-FGD-02

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Field pH S.U.	07/26/2017	FLD20170726	1 of 2	4.980	4.500	n/n		--
Field pH S.U.	09/27/2017	FLD20170927	1 of 2	4.980	4.880	n/n		--

Run Id: 5

Location Id: MW-FGD-02

Compliance Test: Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Fluoride, total mg/L	07/26/2017	428960006	--	--	< 0.100	n		--
Fluoride, total mg/L	09/27/2017	434133005	--	--	< 0.100	n		--

Run Id: 6

Location Id: MW-FGD-02

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Sulfate, tot mg/L	07/26/2017	AB27950	1 of 2	0.830	3.570	y		None
Sulfate, tot mg/L	09/27/2017	AB28842	1 of 2	0.830	4.560	y		None

Run Id: 7

Location Id: MW-FGD-02

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.

Detection Monitoring Summary

Run Id: 7

Location Id: MW-FGD-02

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Total Dissolved Solids mg/L	07/26/2017	AB27950	1 of 2	96.000	39.000	n		--
Total Dissolved Solids mg/L	09/27/2017	AB28842	1 of 2	96.000	46.000	n		--

Run Id: 8

Location Id: MW-FGD-03

Compliance Test: Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Boron, total ug/L	07/26/2017	AB27969	--	--	< 1.000	n		--
Boron, total ug/L	09/27/2017	AB28861	--	--	< 1.000	n		--

Run Id: 9

Location Id: MW-FGD-03

Compliance Test: Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Calcium, tot ug/L	07/26/2017	AB27969	1 of 2	1.390	12.900	y		Downward
Calcium, tot ug/L	09/27/2017	AB28861	1 of 2	1.390	8.778	y		Downward

Run Id: 10

Location Id: MW-FGD-03

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.

Detection Monitoring Summary

Run Id: 10

Location Id: MW-FGD-03

Compliance Test: Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Chlorides mg/L	07/26/2017	AB27949	1 of 2	7.451	8.490	y		Downward
Chlorides mg/L	09/27/2017	AB28843	1 of 2	7.451	7.510	y		Downward

Run Id: 11

Location Id: MW-FGD-03

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Field pH S.U.	07/26/2017	FLD20170726	1 of 2	4.980	5.270	y/n		--
Field pH S.U.	09/27/2017	FLD20170927	1 of 2	4.980	5.550	y/n		--

Run Id: 12

Location Id: MW-FGD-03

Compliance Test: Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Fluoride, total mg/L	07/26/2017	428960005	--	--	< 0.100	n		--
Fluoride, total mg/L	09/27/2017	434133006	--	--	< 0.100	n		--

Run Id: 13

Location Id: MW-FGD-03

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

Detection Monitoring Summary

Run Id: 13**Location Id:** MW-FGD-03**Compliance Test:** Non-Parametric Prediction Interval on Background Useing largest background data value.

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Sulfate, tot mg/L	07/26/2017	AB27949	1 of 2	0.830	16.970	y		None
Sulfate, tot mg/L	09/27/2017	AB28843	1 of 2	0.830	4.280	y		None

Run Id: 14**Location Id:** MW-FGD-03**Compliance Test:** Non-Parametric Prediction Interval on Background Useing largest background data value.

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Total Dissolved Solids mg/L	07/26/2017	AB27949	1 of 2	96.000	75.000	n		--
Total Dissolved Solids mg/L	09/27/2017	AB28843	1 of 2	96.000	61.000	n		--

Run Id: 15**Location Id:** MW-FGD-04**Compliance Test:** Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Boron, total ug/L	07/26/2017	AB27971	--	--	< 1.000	n		--
Boron, total ug/L	09/28/2017	AB28863	--	--	< 1.000	n		--

Run Id: 16**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.

Wateree Station

January 18, 2018

1:58:59 PM

Detection Monitoring Summary

Run Id: 16

Location Id: MW-FGD-04

Compliance Test: Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Calcium, tot ug/L	07/26/2017	AB27971	1 of 2	1.390	2.510	y		None
Calcium, tot ug/L	09/28/2017	AB28863	1 of 2	1.390	1.958	y		None

Run Id: 17

Location Id: MW-FGD-04

Compliance Test: Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Chlorides mg/L	07/26/2017	AB27951	1 of 2	7.451	6.900	n		--
Chlorides mg/L	09/28/2017	AB28845	1 of 2	7.451	6.090	n		--

Run Id: 18

Location Id: MW-FGD-04

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Field pH S.U.	07/26/2017	FLD20170726	1 of 2	4.980	4.180	n/n		--
Field pH S.U.	09/28/2017	FLD20170928	1 of 2	4.980	4.360	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.

Wateree Station

Detection Monitoring Summary

Run Id: 19

Location Id: MW-FGD-04

Compliance Test: Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Fluoride, total mg/L	07/26/2017	428960007	--	--	< 0.100	n		--
Fluoride, total mg/L	09/28/2017	434133008	--	--	< 0.100	n		--

Run Id: 20

Location Id: MW-FGD-04

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Sulfate, tot mg/L	07/26/2017	AB27951	1 of 2	0.830	4.750	y		Downward
Sulfate, tot mg/L	09/28/2017	AB28845	1 of 2	0.830	4.030	y		Downward

Run Id: 21

Location Id: MW-FGD-04

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Total Dissolved Solids mg/L	07/26/2017	AB27951	1 of 2	96.000	29.000	n		--
Total Dissolved Solids mg/L	09/28/2017	AB28845	1 of 2	96.000	33.000	n		--

Run Id: 22

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

Detection Monitoring Summary

Run Id: 22**Location Id:** MW-FGD-05**Compliance Test:** Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Boron, total ug/L	07/26/2017	AB27972	--	--	< 1.000	n		--
Boron, total ug/L	09/28/2017	AB28864	--	--	< 1.000	n		--

Run Id: 23**Location Id:** MW-FGD-05**Compliance Test:** Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Calcium, tot ug/L	07/26/2017	AB27972	1 of 2	1.390	23.500	y		Upward
Calcium, tot ug/L	09/28/2017	AB28864	1 of 2	1.390	5.429	y		Upward

Run Id: 24**Location Id:** MW-FGD-05**Compliance Test:** Parametric Prediction Interval on Background

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Chlorides mg/L	07/26/2017	AB27952	1 of 2	7.451	12.160	y		Upward
Chlorides mg/L	09/28/2017	AB28846	1 of 2	7.451	13.900	y		Upward

Run Id: 25**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.

Detection Monitoring Summary

Run Id: 25

Location Id: MW-FGD-05

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Field pH S.U.	07/26/2017	FLD20170726	1 of 2	4.980	5.480	y/n		--
Field pH S.U.	09/28/2017	FLD20170928	1 of 2	4.980	4.990	y/n		--

Run Id: 26

Location Id: MW-FGD-05

Compliance Test: Double Quantification Rule

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Fluoride, total mg/L	07/26/2017	428960008	--	--	< 0.100	n		--
Fluoride, total mg/L	09/28/2017	434133009	--	--	< 0.100	n		--

Run Id: 27

Location Id: MW-FGD-05

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Sulfate, tot mg/L	07/26/2017	AB27952	1 of 2	0.830	16.060	y		None
Sulfate, tot mg/L	09/28/2017	AB28846	1 of 2	0.830	2.920	y		None

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.

Detection Monitoring Summary

Run Id: 28

Location Id: MW-FGD-05

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

<u>Parameter</u>	<u>Sample Date</u>	<u>Lab Id</u>	<u>Re Testing</u>	<u>Upper Limit</u>	<u>Compliance Result</u>	<u>Exceedance</u>	<u>Possible SSI</u>	<u>Post-Hoc Trend</u>
Total Dissolved Solids mg/L	07/26/2017	AB27952	1 of 2	96.000	98.000	y		Upward
Total Dissolved Solids mg/L	09/28/2017	AB28846	1 of 2	96.000	53.000	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

January 18, 2018

1:58:59 PM

All Background Results Non-Detect

Location Id: MW-FGD-02

Run Id: 1

Parameter: Boron, total

Method: Double Quantification Rule

Percent ND: 100

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

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	1.000	0.044	0.044	1.000	0.000	Y	N
09/27/2017	1.000	0.044	0.044	1.000	0.000	Y	N

All Background Results Non-Detect

Location Id: MW-FGD-02
Parameter: Fluoride, total

Run Id: 5

Method: Double Quantification Rule
Percent ND: 100
ND Approach: > 50% to <= 100 % Substitute PQL

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	0.100	0.033	0.033	0.100	0.000	Y	N
09/27/2017	0.100	0.033	0.033	0.100	0.000	Y	N

All Background Results Non-Detect

Location Id: MW-FGD-03

Run Id: 8

Parameter: Boron, total

Method: Double Quantification Rule

Percent ND: 100

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

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	1.000	0.044	0.044	1.000	0.000	Y	N
09/27/2017	1.000	0.044	0.044	1.000	0.000	Y	N

All Background Results Non-Detect

Location Id: MW-FGD-03
Parameter: Fluoride, total

Run Id: 12

Method: Double Quantification Rule
Percent ND: 100
ND Approach: > 50% to <= 100 % Substitute PQL

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	0.100	0.050	0.033	0.100	0.000	Y	N
09/27/2017	0.100	0.033	0.033	0.100	0.000	Y	N

All Background Results Non-Detect

Location Id: MW-FGD-04

Run Id: 15

Parameter: Boron, total

Method: Double Quantification Rule

Percent ND: 100

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

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	1.000	0.044	0.044	1.000	0.000	Y	N
09/28/2017	1.000	0.044	0.044	1.000	0.000	Y	N

All Background Results Non-Detect

Location Id: MW-FGD-04
Parameter: Fluoride, total

Run Id: 19

Method: Double Quantification Rule
Percent ND: 100
ND Approach: > 50% to <= 100 % Substitute PQL

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	0.100	0.042	0.033	0.100	0.000	Y	N
09/28/2017	0.100	0.033	0.033	0.100	0.000	Y	N

All Background Results Non-Detect

Location Id: MW-FGD-05

Run Id: 22

Parameter: Boron, total

Method: Double Quantification Rule

Percent ND: 100

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

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	1.000	0.044	0.044	1.000	0.000	Y	N
09/28/2017	1.000	0.044	0.044	1.000	0.000	Y	N

All Background Results Non-Detect

Location Id: MW-FGD-05
 Parameter: Fluoride, total

Run Id: 26

Method: Double Quantification Rule
 Percent ND: 100
 ND Approach: > 50% to <= 100 % Substitute PQL

<u>Sample Date</u>	<u>Modified Result</u>	<u>Analysis Result</u>	<u>Detection Limit</u>	<u>PQL</u>	<u>RL</u>	<u>Non Detect</u>	<u>Exceedance</u>
07/26/2017	0.100	0.041	0.033	0.100	0.000	Y	N
09/28/2017	0.100	0.033	0.033	0.100	0.000	Y	N

All Background Results Non-Detect

Wateree Station
Parametric Prediction Interval on Background - Background Data Calculation

<u>Number Of Locations:</u>	4	<u>Annual Site Wide False Positive Rate (SWFPR):</u>	0.10
<u>Number Of Parameters:</u>	7	<u>Sample Events per Year:</u>	2
<u>Sampling Plan:</u>	Interwell	<u>Verification Sampling:</u>	Pass 1 of 2 (one resample)

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

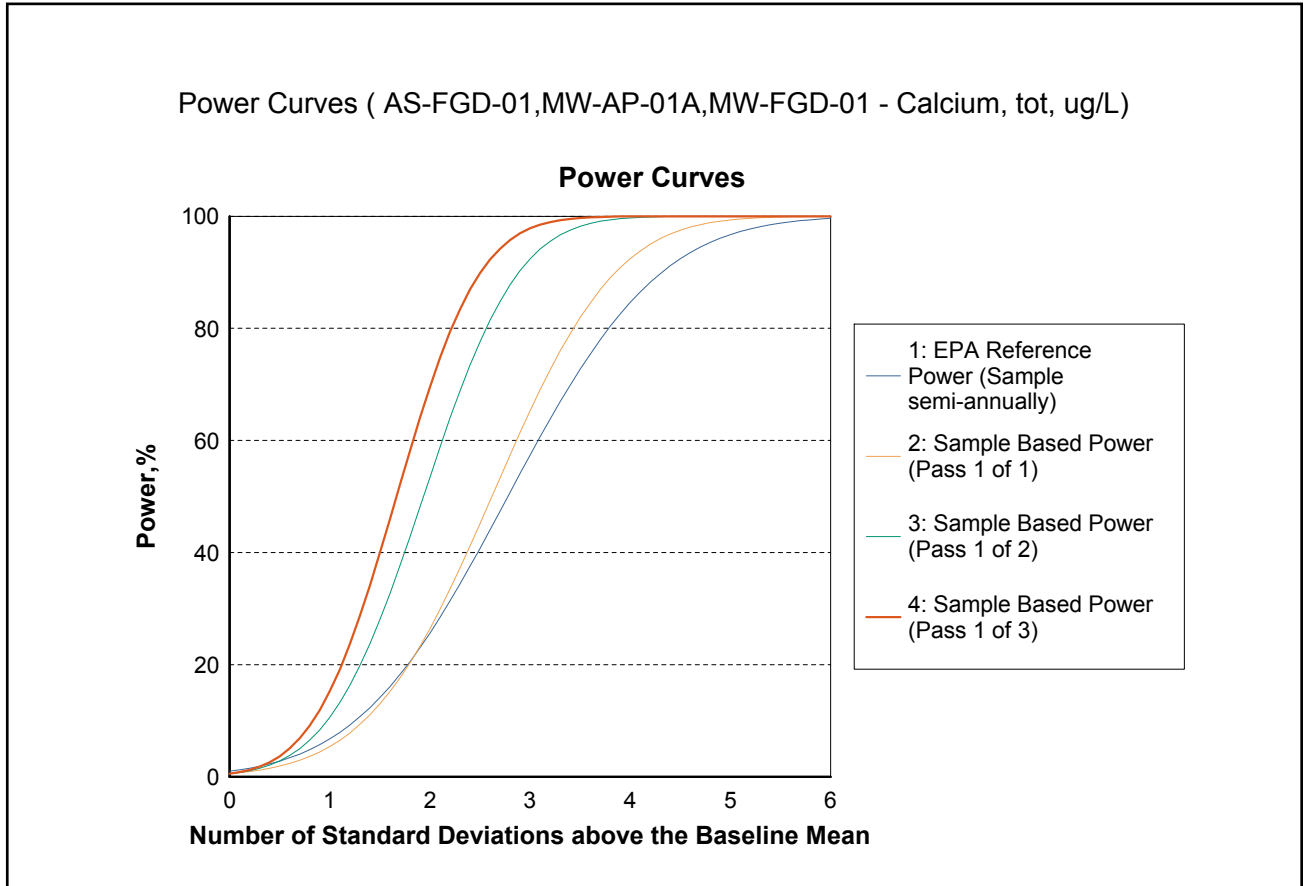
Insufficient Background: 0
DOR Tests: 2

<u>Parameter Name:</u>	Calcium, tot, ug/L	<u>Background Date Range:</u>	05/11/2016 to 11/14/2017
<u>Alpha Per Test FPR:</u>	0.00261	<u>Option for LT Pts:</u>	0% to <= 15% Substitute ½ PQL
<u>Total Pts</u>	23	<u>Kappa for Selected Verification Plan:</u>	1.756
<u>LT Pts</u>	0	<u>Mean</u>	0.8284
<u>%LT Pts</u>	0	<u>StdDev</u>	0.3176
<u>Normal/Log Normal</u>	n/y	<u>ln Mean</u>	-0.2432
<u>Log Transformed:</u>	y	<u>ln StdDev</u>	0.3261

<u>Parameter Name:</u>	Chlorides, mg/L	<u>Background Date Range:</u>	05/11/2016 to 11/14/2017
<u>Alpha Per Test FPR:</u>	0.00261	<u>Option for LT Pts:</u>	0% to <= 15% Substitute ½ PQL
<u>Total Pts</u>	21	<u>Kappa for Selected Verification Plan:</u>	1.768
<u>LT Pts</u>	0	<u>Mean</u>	5.7043
<u>%LT Pts</u>	0	<u>StdDev</u>	0.9879
<u>Normal/Log Normal</u>	y/y	<u>ln Mean</u>	1.7264
<u>Log Transformed:</u>	n	<u>ln StdDev</u>	0.1784

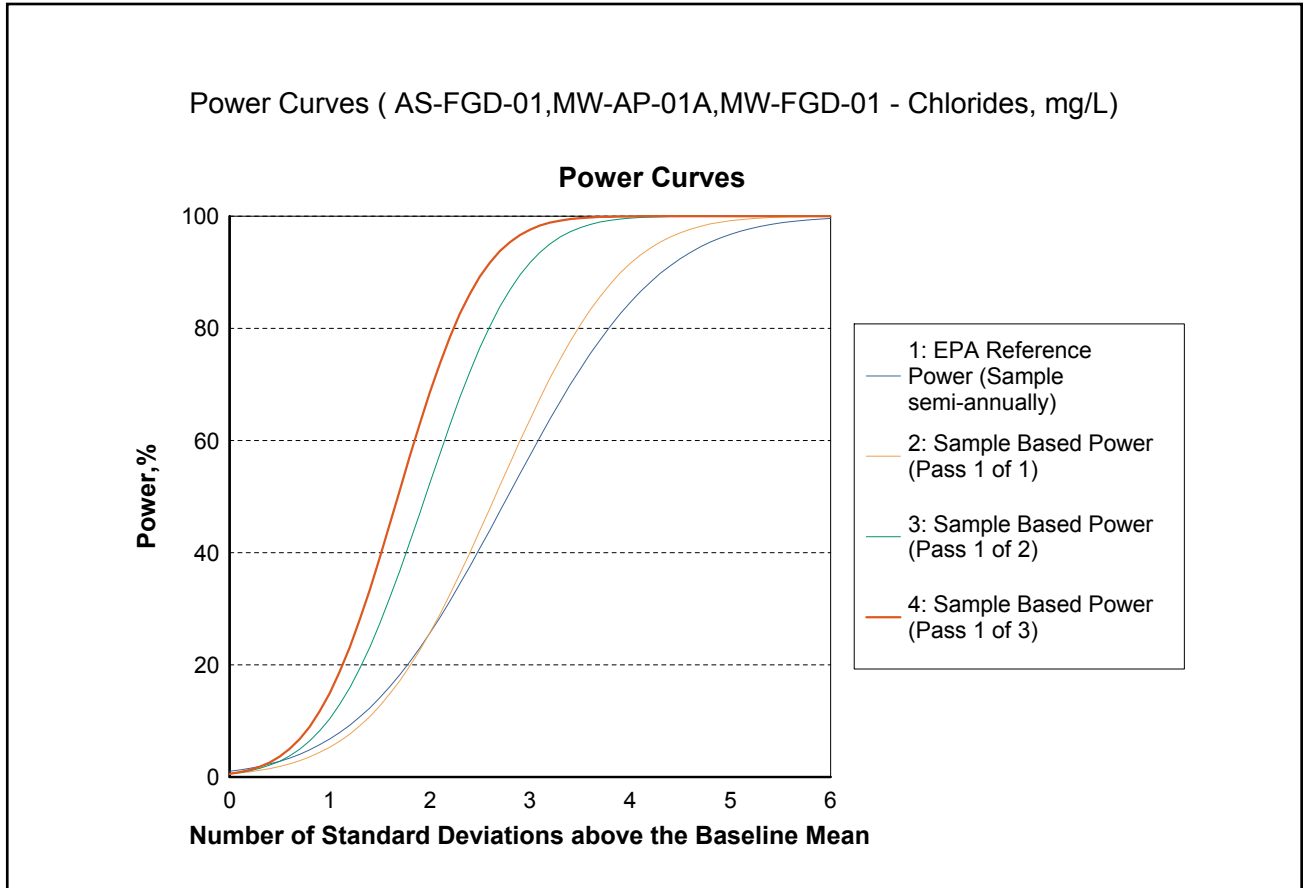
Wateree Station Parametric Prediction Interval on Background - Background Data Calculation

<u>Number Of Locations:</u>	4	<u>Annual Site Wide False Positive Rate (SWFPR):</u>	0.10
<u>Number Of Parameters:</u>	7	<u>Sample Events per Year:</u>	2
<u>Sampling Plan:</u>	Interwell	<u>Verification Sampling:</u>	Pass 1 of 2 (one resample)



**Wateree Station
Parametric Prediction Interval on Background - Background Data Calculation**

<u>Number Of Locations:</u>	4	<u>Annual Site Wide False Positive Rate (SWFPR):</u>	0.10
<u>Number Of Parameters:</u>	7	<u>Sample Events per Year:</u>	2
<u>Sampling Plan:</u>	Interwell	<u>Verification Sampling:</u>	Pass 1 of 2 (one resample)



Wateree Station Parametric Prediction Interval on Background - Compliance Analysis

User Supplied Information

Sided: 1
Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 09/28/2017
Compliance Locations: MW-FGD-02,MW-FGD-03,MW-FGD-04,MW-FGD-05
Background Locations: AS-FGD-01,MW-AP-01A,MW-FGD-01

Location MW-FGD-02

Run Id: 2

Parameter Name: Calcium, tot, ug/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	2.920	1.390		y
9/27/2017	3.498	1.390		y

Run Id: 3

Parameter Name: Chlorides, mg/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	6.990	7.451		n
9/27/2017	7.060	7.451		n

Prediction Interval is based on Normal Distribution and the number of compliance periods (k).

Wateree Station Parametric Prediction Interval on Background - Compliance Analysis

User Supplied Information

Sided: 1
Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 09/28/2017
Compliance Locations: MW-FGD-02,MW-FGD-03,MW-FGD-04,MW-FGD-05
Background Locations: AS-FGD-01,MW-AP-01A,MW-FGD-01

Location MW-FGD-03

Run Id: 9

Parameter Name: Calcium, tot, ug/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	12.900	1.390		y
9/27/2017	8.778	1.390		y

Run Id: 10

Parameter Name: Chlorides, mg/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	8.490	7.451		y
9/27/2017	7.510	7.451		y

Prediction Interval is based on Normal Distribution and the number of compliance periods (k).

Wateree Station Parametric Prediction Interval on Background - Compliance Analysis

User Supplied Information

Sided: 1
Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 09/28/2017
Compliance Locations: MW-FGD-02,MW-FGD-03,MW-FGD-04,MW-FGD-05
Background Locations: AS-FGD-01,MW-AP-01A,MW-FGD-01

Location MW-FGD-04

Run Id: 16

Parameter Name: Calcium, tot, ug/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	2.510	1.390		y
9/28/2017	1.958	1.390		y

Run Id: 17

Parameter Name: Chlorides, mg/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	6.900	7.451		n
9/28/2017	6.090	7.451		n

Prediction Interval is based on Normal Distribution and the number of compliance periods (k).

Wateree Station Parametric Prediction Interval on Background - Compliance Analysis

User Supplied Information

Sided: 1
Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 09/28/2017
Compliance Locations: MW-FGD-02,MW-FGD-03,MW-FGD-04,MW-FGD-05
Background Locations: AS-FGD-01,MW-AP-01A,MW-FGD-01

Location MW-FGD-05

Run Id: 23

Parameter Name: Calcium, tot, ug/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	23.500	1.390		y
9/28/2017	5.429	1.390		y

Run Id: 24

Parameter Name: Chlorides, mg/L

Option for LT Pts (Compliance Data) : 0% to <= 15% Substitute PQL

<u>Sample Date</u>	<u>Analysis Result</u>	<u>Upper Limit</u>	<u>Upper Limit</u>	Result >
7/26/2017	12.160	7.451		y
9/28/2017	13.900	7.451		y

Prediction Interval is based on Normal Distribution and the number of compliance periods (k).

Wateree Station
Parametric Prediction Interval on Background - Compliance Analysis

User Supplied Information

Sided:	1
Background Date Range:	05/11/2016 to 11/14/2017
Compliance Date Range:	07/24/2017 to 09/28/2017
Compliance Locations:	MW-FGD-02,MW-FGD-03,MW-FGD-04,MW-FGD-05
Background Locations:	AS-FGD-01,MW-AP-01A,MW-FGD-01

Prediction Interval is based on Normal Distribution and the number of compliance periods (k).

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 9/28/2017
No. of Verification Resamples: 1

Run Id: 4

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00400	Field pH	S.U.	23	0% to <= 15% Substitute PQL

<u>One-Sided Upper Confidence Level, %</u>	<u>One-Sided Lower Confidence Level, %</u>	<u>PU (Upper) Value:</u>	<u>PL (Lower) Value:</u>
98.70	74.19	4.980	3.440

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>	<u>Less than PL (Lower)</u>
MW-FGD-02	07/26/2017	4.500	n	n
MW-FGD-02	09/27/2017	4.880	n	n

Run Id: 6

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00945	Sulfate, tot	mg/L	21	> 50% to <= 100 % Substitute PQL

<u>One-Sided Upper Confidence Level, %</u>	<u>PU (Upper) Value:</u>
98.47	0.830

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-02	07/26/2017	3.570	y
MW-FGD-02	09/27/2017	4.560	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 9/28/2017
No. of Verification Resamples: 1

Run Id: 7

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00515	Total Dissolved Solids	mg/L	21	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
98.47	96.000

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-02	07/26/2017	39.000	n
MW-FGD-02	09/27/2017	46.000	n

Run Id: 11

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00400	Field pH	S.U.	23	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
98.70	74.19	4.980	3.440

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>	<u>Less than PL (Lower)</u>
MW-FGD-03	07/26/2017	5.270	y	n
MW-FGD-03	09/27/2017	5.550	y	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 9/28/2017
No. of Verification Resamples: 1

Run Id: 13

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00945	Sulfate, tot	mg/L	21	> 50% to <= 100 % Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
98.47	0.830

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-03	07/26/2017	16.970	y
MW-FGD-03	09/27/2017	4.280	y

Run Id: 14

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00515	Total Dissolved Solids	mg/L	21	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
98.47	96.000

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-03	07/26/2017	75.000	n
MW-FGD-03	09/27/2017	61.000	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 9/28/2017
No. of Verification Resamples: 1

Run Id: 18

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00400	Field pH	S.U.	23	0% to <= 15% Substitute PQL

<u>One-Sided Upper Confidence Level, %</u>	<u>One-Sided Lower Confidence Level, %</u>	<u>PU (Upper) Value:</u>	<u>PL (Lower) Value:</u>
98.70	74.19	4.980	3.440

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>	<u>Less than PL (Lower)</u>
MW-FGD-04	07/26/2017	4.180	n	n
MW-FGD-04	09/28/2017	4.360	n	n

Run Id: 20

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00945	Sulfate, tot	mg/L	21	> 50% to <= 100 % Substitute PQL

<u>One-Sided Upper Confidence Level, %</u>	<u>PU (Upper) Value:</u>
98.47	0.830

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-04	07/26/2017	4.750	y
MW-FGD-04	09/28/2017	4.030	y

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 9/28/2017
No. of Verification Resamples: 1

Run Id: 21

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00515	Total Dissolved Solids	mg/L	21	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
98.47	96.000

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-04	07/26/2017	29.000	n
MW-FGD-04	09/28/2017	33.000	n

Run Id: 25

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00400	Field pH	S.U.	23	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	One-Sided Lower Confidence Level, %	PU (Upper) Value:	PL (Lower) Value:
98.70	74.19	4.980	3.440

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>	<u>Less than PL (Lower)</u>
MW-FGD-05	07/26/2017	5.480	y	n
MW-FGD-05	09/28/2017	4.990	y	n

Wateree Station
Non-Parametric Prediction Interval on Background

User Supplied Information

Background Date Range: 05/11/2016 to 11/14/2017
Compliance Date Range: 07/24/2017 to 9/28/2017
No. of Verification Resamples: 1

Run Id: 27

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00945	Sulfate, tot	mg/L	21	> 50% to <= 100 % Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
98.47	0.830

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-05	07/26/2017	16.060	y
MW-FGD-05	09/28/2017	2.920	y

Run Id: 28

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

<u>Parameter Code</u>	<u>Parameter Name</u>	<u>Units</u>	<u>Background Sample Count</u>	<u>Option for LT Pts.</u>
00515	Total Dissolved Solids	mg/L	21	0% to <= 15% Substitute PQL

One-Sided Upper Confidence Level, %	PU (Upper) Value:
98.47	96.000

<u>Location</u>	<u>Sample Date</u>	<u>Sample Result</u>	<u>Greater than PU (Upper)</u>
MW-FGD-05	07/26/2017	98.000	y
MW-FGD-05	09/28/2017	53.000	n

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 1

Location ID: MW-FGD-02	Parameter Code: 01022
Confidence Level: 0.95	Parameter: Boron, total
Date Range: 05/11/2016 to 09/27/2017	Units: ug/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	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:	0.000	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:	0.000
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 2

Location ID: MW-FGD-02	Parameter Code: 00916
Confidence Level: 0.95	Parameter: Calcium, tot
Date Range: 05/11/2016 to 09/27/2017	Units: ug/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-0.876	ug/L per year
Lower Confidence Limit of Slope, M1:	-5.553	ug/L per year
Upper Confidence Limit of Slope, M2+1:	1.500	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.938
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00940
Confidence Level: 0.95	Parameter: Chlorides
Date Range: 05/11/2016 to 09/27/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-4.455	mg/L per year
Lower Confidence Limit of Slope, M1:	-9.618	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-1.824	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.815
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00400
Confidence Level: 0.95	Parameter: Field pH
Date Range: 05/11/2016 to 09/27/2017	Units: S.U.
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	0.219	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.832	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.934	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.938
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00951
Confidence Level: 0.95	Parameter: Fluoride, total
Date Range: 05/11/2016 to 09/27/2017	Units: mg/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	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:	0.000
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00945
Confidence Level: 0.95	Parameter: Sulfate, tot
Date Range: 05/11/2016 to 09/27/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-1.454	mg/L per year
Lower Confidence Limit of Slope, M1:	-18.770	mg/L per year
Upper Confidence Limit of Slope, M2+1:	3.927	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.938
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00515
Confidence Level: 0.95	Parameter: Total Dissolved Solids
Date Range: 05/11/2016 to 09/27/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-20.116	mg/L per year
Lower Confidence Limit of Slope, M1:	-51.173	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-7.874	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.981
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 8

Location ID: MW-FGD-03	Parameter Code: 01022
Confidence Level: 0.95	Parameter: Boron, total
Date Range: 05/12/2016 to 09/27/2017	Units: ug/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	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:	0.000	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:	0.000
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 9

Location ID: MW-FGD-03	Parameter Code: 00916
Confidence Level: 0.95	Parameter: Calcium, tot
Date Range: 05/12/2016 to 09/27/2017	Units: ug/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-13.551	ug/L per year
Lower Confidence Limit of Slope, M1:	-31.110	ug/L per year
Upper Confidence Limit of Slope, M2+1:	-5.953	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.606
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00940
Confidence Level: 0.95	Parameter: Chlorides
Date Range: 05/12/2016 to 09/27/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-1.579	mg/L per year
Lower Confidence Limit of Slope, M1:	-5.593	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.283	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.981
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00400
Confidence Level: 0.95	Parameter: Field pH
Date Range: 05/12/2016 to 09/27/2017	Units: S.U.
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-0.523	S.U. per year
Lower Confidence Limit of Slope, M1:	-1.161	S.U. per year
Upper Confidence Limit of Slope, M2+1:	-0.247	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.398
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00951
Confidence Level: 0.95	Parameter: Fluoride, total
Date Range: 05/12/2016 to 09/27/2017	Units: mg/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	Percent of ND: 78

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:	-0.024	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:	-1.159
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00945
Confidence Level: 0.95	Parameter: Sulfate, tot
Date Range: 05/12/2016 to 09/27/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-24.176	mg/L per year
Lower Confidence Limit of Slope, M1:	-77.819	mg/L per year
Upper Confidence Limit of Slope, M2+1:	10.164	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.355
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00515
Confidence Level: 0.95	Parameter: Total Dissolved Solids
Date Range: 05/12/2016 to 09/27/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-68.157	mg/L per year
Lower Confidence Limit of Slope, M1:	-163.929	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-11.121	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-2.097
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	Downward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 15

Location ID: MW-FGD-04	Parameter Code: 01022
Confidence Level: 0.95	Parameter: Boron, total
Date Range: 05/12/2016 to 09/28/2017	Units: ug/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	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:	0.000	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:	0.000
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 16

Location ID: MW-FGD-04	Parameter Code: 00916
Confidence Level: 0.95	Parameter: Calcium, tot
Date Range: 05/12/2016 to 09/28/2017	Units: ug/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-0.497	ug/L per year
Lower Confidence Limit of Slope, M1:	-1.224	ug/L per year
Upper Confidence Limit of Slope, M2+1:	0.349	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.147
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00940
Confidence Level: 0.95	Parameter: Chlorides
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-2.090	mg/L per year
Lower Confidence Limit of Slope, M1:	-3.019	mg/L per year
Upper Confidence Limit of Slope, M2+1:	0.868	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.355
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 18

Location ID: MW-FGD-04	Parameter Code: 00400
Confidence Level: 0.95	Parameter: Field pH
Date Range: 05/12/2016 to 09/28/2017	Units: S.U.
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-0.180	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.658	S.U. per year
Upper Confidence Limit of Slope, M2+1:	0.505	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.313
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00951
Confidence Level: 0.95	Parameter: Fluoride, total
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	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:	0.000
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00945
Confidence Level: 0.95	Parameter: Sulfate, tot
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-1.986	mg/L per year
Lower Confidence Limit of Slope, M1:	-7.077	mg/L per year
Upper Confidence Limit of Slope, M2+1:	-0.234	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-1.772
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00515
Confidence Level: 0.95	Parameter: Total Dissolved Solids
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	-4.138	mg/L per year
Lower Confidence Limit of Slope, M1:	-15.711	mg/L per year
Upper Confidence Limit of Slope, M2+1:	8.934	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	-0.210
Z test:	1.645
At the 1.0 % 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	Parameter Code: 01022
Confidence Level: 0.95	Parameter: Boron, total
Date Range: 05/12/2016 to 09/28/2017	Units: ug/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	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:	0.000	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:	0.000
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 23

Location ID: MW-FGD-05	Parameter Code: 00916
Confidence Level: 0.95	Parameter: Calcium, tot
Date Range: 05/12/2016 to 09/28/2017	Units: ug/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	3.582	ug/L per year
Lower Confidence Limit of Slope, M1:	0.247	ug/L per year
Upper Confidence Limit of Slope, M2+1:	8.723	ug/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.981
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 24

Location ID: MW-FGD-05	Parameter Code: 00940
Confidence Level: 0.95	Parameter: Chlorides
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	2.456	mg/L per year
Lower Confidence Limit of Slope, M1:	1.186	mg/L per year
Upper Confidence Limit of Slope, M2+1:	3.766	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	2.424
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00400
Confidence Level: 0.95	Parameter: Field pH
Date Range: 05/12/2016 to 09/28/2017	Units: S.U.
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	0.580	S.U. per year
Lower Confidence Limit of Slope, M1:	-0.098	S.U. per year
Upper Confidence Limit of Slope, M2+1:	1.384	S.U. per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	1.355
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 26

Location ID: MW-FGD-05	Parameter Code: 00951
Confidence Level: 0.95	Parameter: Fluoride, total
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: > 50% to <= 100 % Substitute PQL	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:	0.000
Z test:	1.645
At the 1.0 % 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	Parameter Code: 00945
Confidence Level: 0.95	Parameter: Sulfate, tot
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: > 15% to <= 50% Substitute PQL	Percent of ND: 22

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

Median Slope:	1.935	mg/L per year
Lower Confidence Limit of Slope, M1:	-1.192	mg/L per year
Upper Confidence Limit of Slope, M2+1:	2.996	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	0.938
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	None

Wateree Station
Theil Sen Mann-Kendall Trend Analysis

Post Hoc Trend Analysis

Run Id: 28

Location ID: MW-FGD-05	Parameter Code: 00515
Confidence Level: 0.95	Parameter: Total Dissolved Solids
Date Range: 05/12/2016 to 09/28/2017	Units: mg/L
Option for LT Points: 0% to <= 15% Substitute PQL	Percent of ND: 0

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

Median Slope:	8.919	mg/L per year
Lower Confidence Limit of Slope, M1:	3.025	mg/L per year
Upper Confidence Limit of Slope, M2+1:	22.231	mg/L per year

Non-parametric Mann-Kendall Test for Trend

S Statistic:	2.554
Z test:	1.645
At the 1.0 % Confidence Level (One-Sided Test):	Upward

Wateree Station
Theil Sen Mann-Kendall Trend Analysis